

COMMUNITY IMPACT ASSESSMENT

San Diego Freeway (I-405) Improvement Project
SR-73 to I-605

Orange and Los Angeles Counties

12-ORA-405 PM 9.3/24.2 / 07-LA-405 PM 0.0/1.2
12-ORA-22 PM R0.7/R3.8 / 12-ORA-22 PM R0.5/R0.7
12-ORA-73 PM R27.2/R27.8 / 12-ORA-605 PM 3.5/R1.6
07-LA-605 PM R0.0/R1.2

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STATE OF CALIFORNIA
Department of Transportation

Summary

This Community Impact Assessment (CIA) assesses potential land use, community, social, economic, and environmental justice impacts that could result from various alternatives considered as part of the proposed San Diego Freeway Interstate 405 (I-405) Improvement Project. The report has been prepared in accordance with the California Department of Transportation's (Caltrans or Department) *Environmental Handbook Volume 4 Community Impact Assessment*, June 1997, guidelines. In addition, the Project Development Team (PDT) (i.e., affected cities, the Department of Transportation (Department) and the Orange County Transportation Authority [OCTA]) through its meetings and scoping meetings indicated that a substantial interest in the proposed project from a community standpoint exists, and as such, an Environmental Impact Statement (EIS) / Environmental Impact Report (EIR) is being prepared for the proposed project. This CIA technical report has been prepared as part of the EIS/EIR preparation.

S-1 Purpose and Need

The Department, in cooperation with the OCTA, proposes to improve mainline freeway and interchanges on I-405 in Orange County to relieve congestion and improve operational efficiency on the I-405 freeway. The project is primarily located in Orange County, California on I-405 (ORA PM 9.3/24.2; LA PM 0.0/1.2) between SR-73 (ORA PM R27.2/R27.8) and I-605 (ORA PM 3.5/R1.6; LA PM R0.0/R1.2). Encroachments into Los Angeles County and work on SR-22 (ORA PM R0.7/R3.8 and R0.5/R0.7) are associated with signing and striping to accommodate the transition from the existing to proposed facility. The project covers a distance of approximately 16 miles. The purpose of the proposed action is to:

- Add capacity and reduce congestion on the General Purpose (GP) and High Occupancy Vehicle (HOV) lanes along the entire I-405 corridor from SR-73 to I-605;
- Enhance interchange operations;
- Increase mobility, improve trip reliability, maximize throughput, and optimize operations;
- Implement strategies that ensure the earliest project delivery; and
- Enhance safety

The following objectives have been established to successfully complete the project while minimizing environmental impacts:

- Minimize ROW acquisition;
- Ensure financial viability;

- Meet, at a minimum, the commitments of Orange County's Renewed Measure M transportation sales tax initiative to add capacity to the I-405 within the project area;
- Maintain or improve future traffic performance within the corridor; and
- Improve the corridor so as to ensure the facility is maintained as an effective link in the National Strategic Highway Network.

S-2 Proposed Project Description

A No Build Alternative and three build alternatives are being considered.

The No Build Alternative provides a “baseline” for comparing impacts associated with the build alternatives. The baseline conditions under the No Build Alternative would provide no additional lanes or interchange improvements to the I-405 corridor. The project area would continue to operate with no additional improvements with the exception that the two earlier committed projects (SR-22 West County Connectors [WCC] Project and the Costa Mesa Freeway [SR-55] Improvements would be implemented).

Build Alternative 1 would entail the construction of one GP lane in each direction of the I-405 corridor extending from Euclid Street to the I-605 interchange. To ensure efficient and safe merge and diverge operations, auxiliary lanes would also be constructed. In addition, a number of interchange improvements are planned. A total of 16 local street overcrossings which span I-405 would require replacement to accommodate the new GP lane.

Build Alternative 2 would entail the construction of one GP lane in each direction of I-405 extending from Euclid Street to the I-605 interchange. In addition, a second lane in the northbound direction from Brookhurst Street to the SR-22/7th Street interchange would be constructed. A second lane in the southbound direction from the Seal Beach Boulevard on-ramp to Brookhurst Street would also be constructed. To ensure efficient and safe merge and diverge operations, auxiliary lanes would also be constructed. In addition, a number of interchange improvements are planned. A total of 16 local street overcrossings and a pedestrian bridge over I-405 within the project limits would require replacement to accommodate the new GP lanes. In addition, two railroad overheads would be modified and extended as part of the proposed project.

Build Alternative 3 would add one GP lane in each direction of I-405 from Euclid Street to the I-605 interchange (as in Alternatives 1 and 2) and a tolled express lane in each direction of I-405 from SR-73 to I-605. The tolled express lane would be placed beside the existing HOV lane in each direction. The existing HOV lanes and new toll lanes would be managed jointly as an Express Lane Facility with two lanes in each direction.

S-3 *Potential Impacts of Proposed Project*

Table S-1 summarizes potential impacts on land use and planning; growth inducement; social considerations; community service facilities; and economics analyzed within the scope of this CIA.

**Table S-1
Summary of Potential Impacts**

Area of Impact	No Build	Build Alternative 1	Build Alternative 2	Build Alternative 3
Permanent Impacts				
Land Use and Planning	None	Minor conversion of existing residential and commercial uses to public transportation use. In addition, conversion of up to four businesses to transportation use.	Minor conversion of existing residential and commercial uses to public transportation use. In addition, conversion of up to four businesses to transportation use. Currently, inconsistent with the Regional Transportation Plan (RTIP) 2008. Being amended to allow adding two traffic lanes in each direction of the I-405 corridor within the project limits.	Same as Build Alternative 2.
Coastal Zone	None	None	None	None
Wild and Scenic Rivers	None	None	None	None
Farmland	None	None	None	None
Growth Inducement	Foreseeable growth is not anticipated to occur as a result of this alternative	Same as No Build	Same as No Build.	Same as No Build.
Neighborhood and Community Cohesion	Beneficial	None	None	None
ROW Acquisition and Relocation	None	Up to 155 public or privately owned parcels would be affected from the required right-of-way (ROW) acquisition to accommodate the freeway widening and associated roadway improvements. Acquisition would involve a sliver of land from each parcel with the exception of four properties that would be subject to relocation.	Up to 173 public or privately owned parcels would be affected from the required ROW acquisition to accommodate the freeway widening and associated roadway improvements. Acquisition would involve a sliver of land from each parcel with the exception of four properties that would be subject to relocation.	Up to 189 public or privately owned parcels would be affected from the required ROW acquisition to accommodate the freeway widening and associated roadway improvements. Acquisition would involve a sliver of land from each parcel with the exception of four properties that would be subject to relocation.
Environmental Justice	None	None	None	None
Utilities	None	None	None	None

**Table S-1
Summary of Potential Impacts**

Area of Impact	No Build	Build Alternative 1	Build Alternative 2	Build Alternative 3
Parks and Recreation Facilities	None	<p>A de minimis impact would occur to Cascade Park and Buckingham Park from a minor acquisition of land and an aerial easement over the Santa Ana River Trail; however impacts would not adversely affect any of the activities, features, or attributes.</p> <p>Additionally A miniature golf course at Boomers! and Fountain Valley Skate Center in City of Fountain Valley is subject to relocation.</p>	<p>A de minimis impact would occur to Cascade Park, Buckingham Park, and Pleasant View Park from a minor acquisition of land and an aerial easement over the Santa Ana River Trail; however impacts would not adversely affect any of the activities, features, or attributes.</p> <p>Additionally a miniature golf course at Boomers! and Fountain Valley Skate Center in City of Fountain Valley is subject to relocation.</p>	<p>A de minimis impact would occur to Cascade Park, Buckingham Park, and Pleasant View Park from a minor acquisition of land and an aerial easement over the Santa Ana River Trail; however impacts would not adversely affect any of the activities, features, or attributes.</p> <p>Additionally, a miniature golf course at Boomers! and Fountain Valley Skate Center in City of Fountain Valley is subject to relocation.</p>
Circulation and Access	<p>Traffic congestion on I-405 would continue to worsen, resulting in reduced travel speeds and longer commute times for both private vehicles and public transit and encouraging traffic diversion onto local streets, in turn causing inconvenient conditions and safety issues to area residents living adjacent to the I-405 corridor.</p> <p>By year 2020, all segments in the northbound (NB) and southbound (SB) direction along the study corridor would be operating at level of Service (LOS) D and F. By year 2040, all segments in the NB and SB direction along the study corridor would be operating at LOS F.</p>	<p>By year 2020, 3 out of 6 segments in the NB and SB direction along the study corridor would have the improvement in level of services (LOS) during the AM peak hours and 3 out of 6 segments in the NB and SB would be improved during the PM peak hours by the opening year 2020 as compared to the No Build Alternative scenario.</p> <p>By year 2040, only one segment in the NB direction during the AM peak hours and one segment in the SB direction during the PM peak hours would have the improvement in LOS as compared to the No Build Alternative scenario.</p> <p>Up to 720 parking spaces out of the current inventory of 2243 spaces from 17 potentially affected properties would be lost to accommodate freeway widening and associated roadway improvements. In addition, approximately 13 on-street parking spaces could be lost.</p> <p>Implementation of the proposed project together with the other two committed projects within the project limits would add capacity to the I-405 GP lanes to accommodate future traffic demand</p>	<p>By year 2020, 4 out of 6 segments in the NB and SB direction along the study corridor would have improvement in LOS during the AM peak hours and 4 out of 6 segments in the NB and SB direction would be improved during the PM peak hours by the opening year 2020 as compared to the No Build Alternative scenario.</p> <p>By year 2040, all three segments in the NB direction would have improved LOS (from F to E) during the AM peak hours as compared to the No Build Alternative scenario. In addition, one segment in the NB direction and two segments in the SB direction would have improved LOS during the PM peak hours as compared to the No Build Alternative scenario.</p> <p>Parking impacts would be the same as Build Alternative 1.</p> <p>Implementation of the proposed project together with the other two committed projects within the project limits would add capacity to the I-405 GP lanes to accommodate future traffic demand during peak periods resulting in the reduction of traffic congestion conditions at various segments and interchanges.</p>	<p>By year 2020, 4 out of 6 segments in the NB and SB direction along the study corridor would have improvement in LOS during the AM peak hours and 4 out of 6 segments in the NB and SB direction would be improved during the PM peak hours by the opening year 2020 as compared to the No Build Alternative scenario.</p> <p>By year 2040, only one segment in the SB direction during the PM peak hours would have the improved LOS as compared to the No Build Alternative scenario.</p> <p>Parking impacts would be the same as Build Alternative 1.</p> <p>Implementation of the proposed project together with the other two committed projects within the project limits would add capacity to the I-405 GP lanes to accommodate future traffic demand during peak periods resulting in the reduction of traffic congestion conditions at various segments and interchanges.</p>

**Table S-1
Summary of Potential Impacts**

Area of Impact	No Build	Build Alternative 1	Build Alternative 2	Build Alternative 3
		during peak periods resulting in the reduction of traffic congestion conditions at various segments and interchanges.		
Economics – Business Displacement	None	Up to four businesses within the City of Fountain Valley would be subject to relocation. Based on current market research, there are comparable suitable locations on which these businesses can be reestablished.	Same as Build Alternative 1.	Same as Build Alternative 1.
Economics - Employment	None	Approximately 50-90 employees would become unemployed if the owners of the businesses subject to relocation decided to discontinue their businesses rather than accept relocation assistances. Additionally, it is estimated that the project would result in approximately 32,000 direct/indirect/induced jobs.	Same as Build Alternative 1. Additionally, it is estimated that the project would result in approximately 34,000 direct/indirect/induced jobs.	Same as Build Alternative 1. Additionally, it is estimated that the project would result in approximately 42,000 direct/indirect/induced jobs.
Economics – Fiscal Impacts	Continued congestion on I-405 Freeway would negatively affect local businesses and freeway-dependent businesses. With the congestion along the I-405 Corridor and roadway network continues, residents and businesses that are dependent on the freeway and roadway network may find alternate options to reside and do business; thus affecting the local economy on a cumulative basis.	Increase in mobility and operations of the freeway and roadway network would contribute to the increase in property tax base, sale tax revenue, and property values. Minor loss of property/sales tax revenue to the city of Fountain Valley if businesses subject to relocation moved outside the City of Fountain Valley. Improvements to the I-405 corridor would remove traffic congestion along the important link between Los Angeles and Orange Counties, providing beneficial effects to the regional economy on a cumulative basis.	Same as Build Alternative 1.	Same as Build Alternative 1.

**Table S-1
Summary of Potential Impacts**

Area of Impact	No Build	Build Alternative 1	Build Alternative 2	Build Alternative 3
Temporary (Construction) Impacts				
Land Use and Planning	None	Temporary disruption of some current use of land near the construction zone due to equipment operations and temporary traffic lane and ramp closures to accommodate construction activities.	Same as Build Alternative 1.	Same as Build Alternative 1.
Coastal Zone	None	None	None	None
Wild and Scenic Rivers	None	None	None	None
Farmland	None	None	None	None
Population and Growth	None	None	None	None
Neighborhood and Community Cohesion	None	Residents and businesses located near construction zone may occasionally experience some inconvenience due to construction equipment and material obstruction, traffic lane closure, and parking restriction.	Same as Build Alternative 1.	Same as Build Alternative 1.
ROW Acquisition and Relocation	None	Impacts are addressed under Permanent Impact Section.	Same as Build Alternative 1.	Same as Build Alternative 1.
Environmental Justice	None	None	None	None
Utilities	None	<p>This Alternative is anticipated to result in the following types and number of utility relocations:</p> <p>Electric: 28 Natural Gas: 16 Water: 16 Sewer: 8 Communication: 17</p>	<p>This Alternative is anticipated to result in the following types and number of relocations:</p> <p>Electric: 38 Natural Gas: 16 Water: 16 Sewer: 8 Communication: 17</p>	<p>This Alternative is anticipated to result in the following types and number of relocations:</p> <p>Electric: 41 Natural Gas: 16 Water: 16 Sewer: 8 Communication: 18</p>

**Table S-1
Summary of Potential Impacts**

Area of Impact	No Build	Build Alternative 1	Build Alternative 2	Build Alternative 3
Parks and Recreation Facilities	None	During construction of the Euclid Street southbound on-ramp, the proposed project would result in a temporary closure of the Santa Ana River Trail. .	Same as Build Alternative 1.	Same as Build Alternative 1.
Circulation and Access	None	Residents and businesses located near construction zone may occasionally experience some inconvenience due to construction equipment and material obstruction, traffic lane closure, and parking restriction. During construction, Santa Ana River Trail would be closed, one riverbank at a time which would result is temporary overall reduction of access and is classified as a de minimis impact. Motorists using I-405 may experience some travel delay due to temporary traffic lane and ramp closures to accommodate freeway widening construction. During construction, some public transit, bicycle and pedestrian facilities could be disrupted by construction equipment and vehicles.	Same as Build Alternative 1.	Same as Build Alternative 1.
Economics	None	Local businesses located near construction zone could experience inconveniences from construction activities on a temporary basis.	Same as Build Alternative 1.	Same as Build Alternative 1.

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Acronyms and Abbreviations

ACOE	Army Corps of Engineers
ADA	Americans with Disabilities Act
BMP	Best Management Practice
Caltrans	California Department of Transportation
CBSP	Commuter Bikeways Strategic Plan
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
C-D	Collector-Distributor
CDR	Center for Demographic Research
CGVP	Compass Growth Visioning Plan
CHP	California Highway Patrol
CIA	Community Impact Assessment
COZEEP	Construction Zone Enhanced Enforcement Program
CTC	California Transportation Commission
DOT	United States Department of Transportation
DRIM	Draft Relocation Impact Memorandum
EB	Eastbound
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EO	Executive Order
ft	Foot
FHWA	Federal Highway Administration
GIS	Geographic Information System
HHS	U.S. Department of Health and Human Services
HOV	High-Occupancy Vehicle
HOT	High-Occupancy Toll Lane
I-405	Interstate 405
I-5	Interstate 5
I-605	Interstate 605
LOS	Level of Service
L RTP	Long Range Transportation Plan
MIS	Major Investment Study
mph	miles per hour
MPO	Metropolitan Planning Organization
MVP	Maintenance Vehicle Pullouts
NEPA	National Environmental Policy Act

NOI	Notice of Intent
NOP	Notice of Preparation
OCTA	Orange County Transportation Authority
OCTAM	Orange County Transportation Analysis Model
OCP	Orange County Projections
OCSD	Orange County Sanitation District
OCWD	Orange County Water District
PA/ED	Project Approval/Environmental Document
PM	Post Mile
PS&E	Plan, Specification, and Estimate
PSR/PDS	Project Study Report/Project Development Study
RCR	Route Concept Report
RCS	Ramp Closure Study
PWG	Policy Working Group
RHNA	Regional housing Need Assessment
ROW	Right-of-Way
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SB	Southbound
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SR	State Route
STAA	Surface transportation Assistance Act
STIP	State Transportation Improvement Program
SWG	Stakeholder Working Group
TAZ	Traffic Analysis Zone
TCE	Temporary Construction Easement
TDM	Transportation Demand Management
TMP	Traffic Management Plan
TSM	Transportation Systems Management
UPRR	Union Pacific Railroad
USC	United States Code
VMT	Vehicle miles travelled
WB	Westbound
WCC	West County Connectors

Chapter 1. Project Description

1.1 INTRODUCTION

The California Department of Transportation—District 12 (Department), in cooperation with the Orange County Transportation Authority (OCTA), proposes to improve mainline freeway and interchanges on Interstate 405 (I-405) (ORA PM 9.3/24.2; LA PM 0.0/1.2) between SR-73 (ORA PM R27.2/R27.8) and I-605 (ORA PM 3.5/R1.6; LAPM R0.0/R1.2). Encroachments into Los Angeles County and work on SR-22 (ORA PM R0.7/R3.8 and R0.5/R0.7) are associated with signing and striping to accommodate the transition from the existing to proposed facility. The project covers a distance of approximately 16 miles, and is primarily located in Orange County.

The proposed project would relieve congestion and improve operational efficiency on I-405 between SR-73 and I-605. The Department is the Lead Agency for compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been carried out by the Department under its assumption of responsibility pursuant to 23 *United States Code* (USC) 327. OCTA is the local agency sponsor and a Responsible Agency under CEQA; the United States Army Corps of Engineers (ACOE) is a Cooperating Agency under NEPA.

The Project Development Team (PDT) (i.e., the Department and the Orange County Transportation Authority [OCTA]) through its meetings and scoping meetings indicated that a substantial interest in the proposed project from a community standpoint exists, and as such, an Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) is being prepared for the proposed project. This Community Impact Assessment (CIA) technical report has been prepared as part of the EIS/EIR preparation. It assesses potential land use, community, social, economic, and environmental justice impacts that could result from various alternatives considered to meet the proposed project objective. The report has been prepared in accordance with the Caltrans *Environmental Handbook Volume 4 Community Impact Assessment*, June 1997, guidelines.

1.2 PROJECT LOCATION AND SETTING

I-405 is considered a bypass route to Interstate 5 (I-5) or the Santa Ana/Golden State Freeway through Orange County and an important component of the county's transportation system. Within Orange County, I-405 extends 24 miles northwesterly from I-5 in Mission Viejo to the Los Angeles/Orange County line. I-405 is a controlled access facility with a fenced right-of-way

(ROW) separated by grade from crossing traffic, with vehicular access limited to interchanges. Within the proposed project limits, I-405 crosses (or is adjacent to) residential, commercial, recreational, and industrial urbanized uses that have developed directly up to the Caltrans' ROW boundary.

Figure 1-1 shows the project's regional vicinity location, and Figure 1-2 shows the project's location. Within the proposed project limits, I-405 has no pedestrian or bicycle access and currently consists of 8 to 12 mixed-flow general purpose (GP) lanes, two high occupancy volume (HOV) lanes, auxiliary lanes along selected portions of the route, and 21 arterial crossings.

The project area is in an urbanized setting with commercial office towers at the southern end of the proposed project in Irvine and suburban, single family residences in the northern end in Seal Beach. There are seven incorporated cities within the project area: Costa Mesa, Fountain Valley, Garden Grove, Huntington Beach, Los Alamitos, Seal Beach, and Westminster, and, also the unincorporated community of Rossmoor.

1.3 PURPOSE AND NEED

The purpose of the proposed action is to:

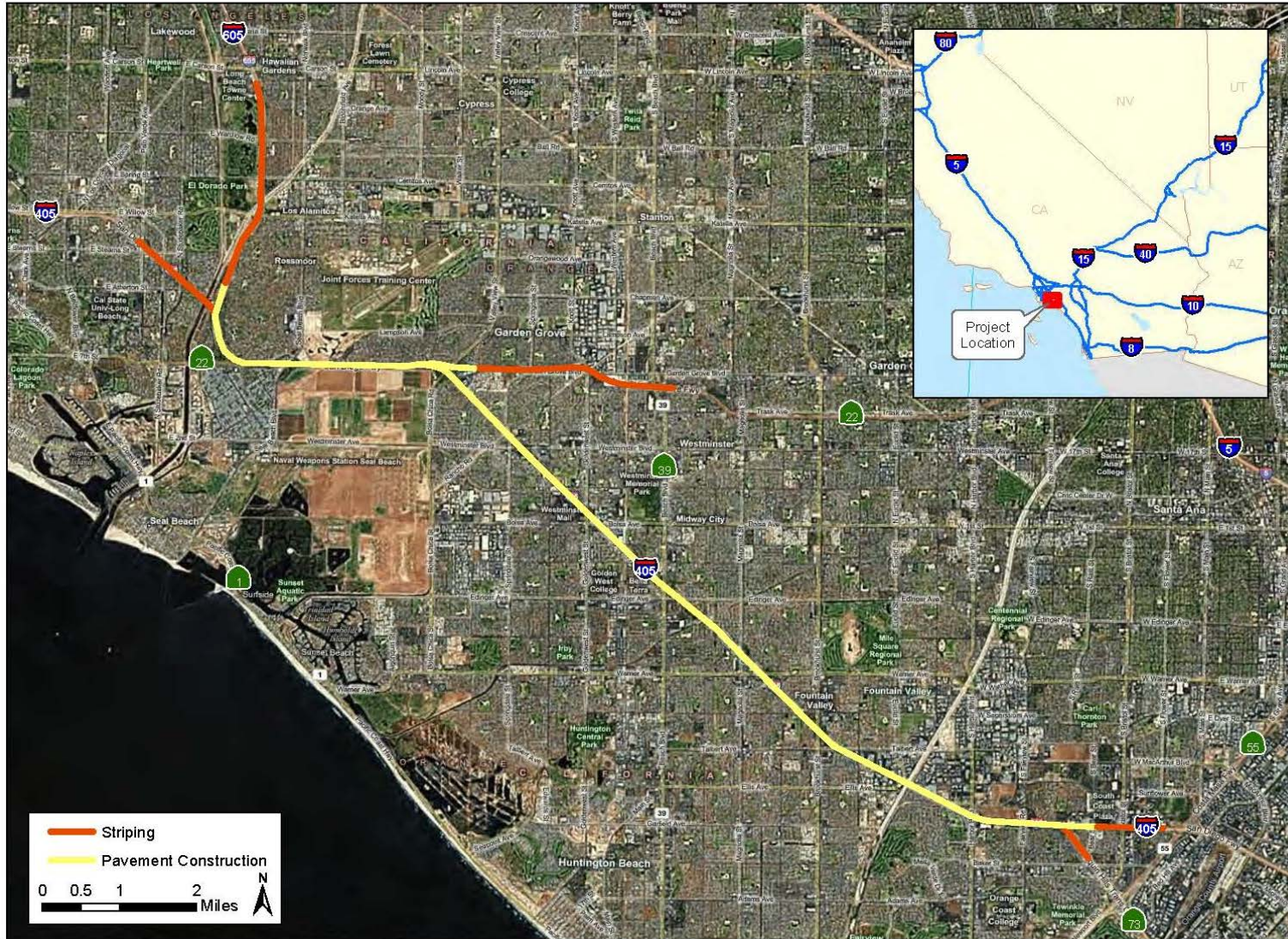
- Add capacity and reduce congestion on the GP and HOV lanes along the entire I-405 corridor from SR-73 to I-605
- Enhance interchange operations
- Increase mobility, improve trip reliability, maximize throughput, and optimize operations
- Implement strategies that ensure the earliest project delivery
- Enhance safety

The following objectives have been established to successfully complete the project while minimizing environmental impacts:

- Minimize ROW acquisition
- Ensure financial viability
- Meet, at a minimum, the commitments of Orange County's Renewed Measure M transportation sales tax initiative to add capacity to I-405 within the project area
- Maintain or improve future traffic performance within the corridor
- Improve the corridor so as to ensure the facility is maintained as an effective link in the National Strategic Highway Network



Figure 1-1: Regional Vicinity Map



Source: Parsons 2010

Figure 1-2: Project Location Map

Current deficiencies of I-405 within the project limits are summarized below:

- The I-405 mainline GP lanes peak period traffic demand exceeds available capacity
- The I-405 mainline HOV lanes peak period traffic demand exceeds available capacity
- The I-405 mainline GP traffic lanes have operational and geometric deficiencies
- The interchanges along I-405 within the study area have geometric, storage, and operational capacity deficiencies
- The I-405 corridor currently has limitations in detecting traffic incidents and providing rapid response and clearance (due to lack of capacity and technological infrastructure).

1.4 PROJECT ALTERNATIVES

A No Build Alternative and three build alternatives are evaluated in this CIA.

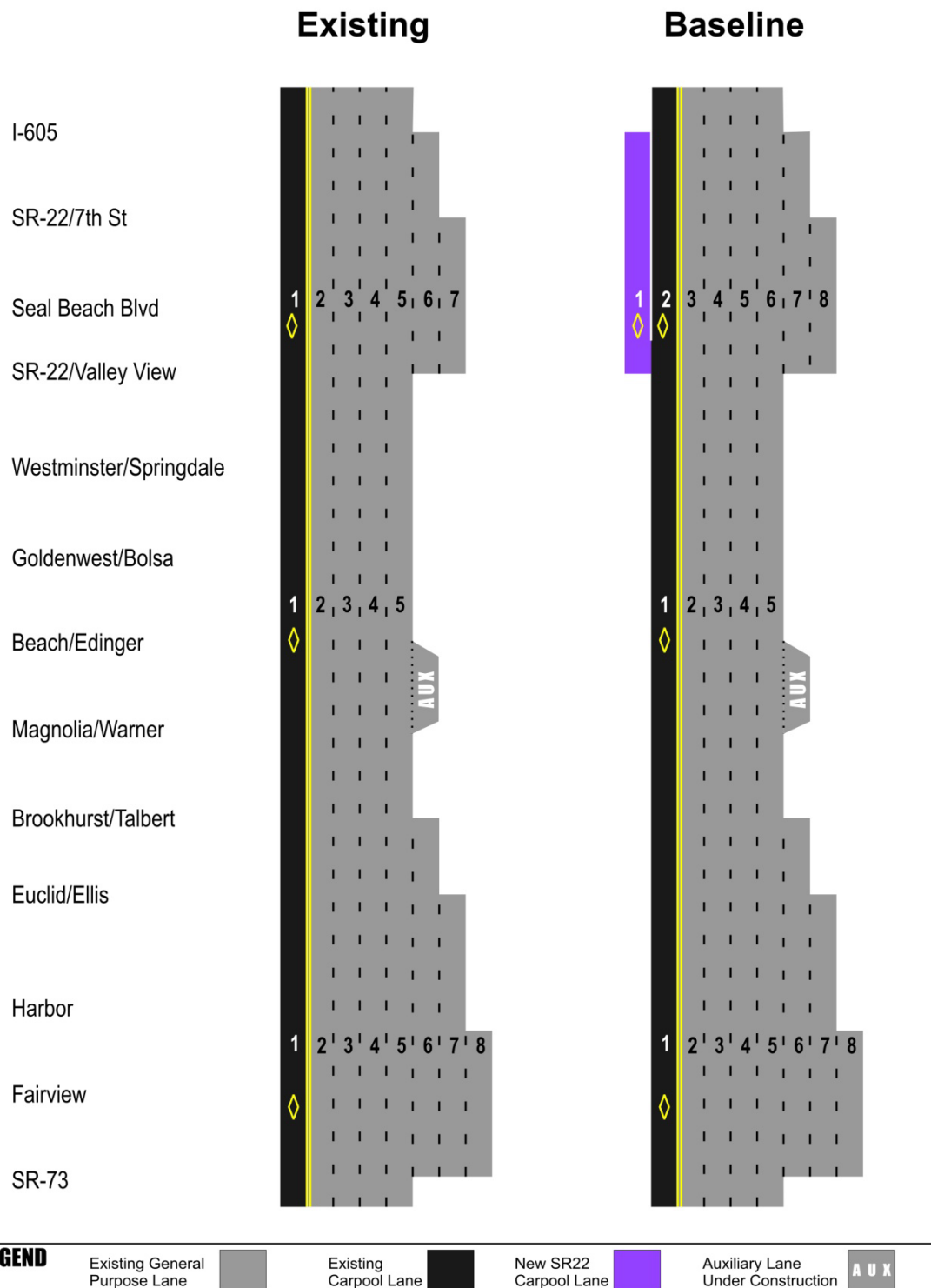
1.4.1 No Build Alternative

The No Build Alternative provides a “baseline” for comparing impacts associated with the build alternatives. The baseline conditions under the No Build Alternative would provide no additional lanes or interchange improvements to the I-405 corridor. The project area would continue to operate with no additional improvements.

Compared to the existing condition, as recorded in the Notice of Preparation (NOP) and the Notice of Intent (NOI), issued August 26, 2009, the future project baseline assumed under the No Build Alternative includes the future completion of the following two projects:

- The SR-22 West County Connectors (WCC) Project, which has received environmental document approval, is proceeding through the design and construction phases.
- The Costa Mesa Freeway (SR-55) Improvements, which would add new lanes to SR-55 between SR-22 on the north and I-405 on the south and improvements on SR-55 between SR-91 on the north and SR-22 on the south.

Figure 1-3 displays the I-405 lane configuration under existing conditions and future project baseline conditions associated with the No Build Alternative.



Source: Parsons 2010

**Figure 1-3: I-405 Lane Configuration –
Existing and Future Project Baseline Conditions**

1.4.2 Build Alternatives

The following subsections describe common and unique design features of the three build alternatives under consideration.

Common Design Features of Build Alternatives

Build Alternatives 1, 2, and 3 would include the following features:

- One GP lane would be added in each direction of I-405 from Euclid Street to the I-605 interchange.
- Travel lanes on the I-405 mainline would be 12-foot (ft)-wide, and right side shoulders would be 10-ft- wide.
- Due to the added travel lanes and shoulder widths proposed on the I-405 mainline, the following 16 local street overcrossings and a pedestrian bridge over I-405 within the project limits would require complete replacement to accommodate the additional proposed width of the freeway underneath the bridges.
 - Ward Street
 - Talbert Avenue
 - Brookhurst Street
 - Slater Avenue
 - Bushard Street
 - Warner Avenue
 - Magnolia Street
 - Pedestrian overcrossing near Heil Avenue
 - Newland Street
 - Edinger Avenue
 - McFadden Avenue
 - Bolsa Avenue
 - Goldenwest Street
 - Edwards Street
 - Westminster Boulevard
 - Springdale Street
 - Bolsa Chica Road
- The I-405/Seal Beach Boulevard overcrossing and various freeway-to-freeway connector structures at the I-405/SR-22 and I-405/I-605 interchanges will be replaced as part of the SR-22 WCC Project, which is currently in the construction phase. The new (replacement) Seal Beach Boulevard overcrossing and freeway-to-freeway connectors to be constructed by the SR-22 WCC Project have been designed to consider the future widening of I-405 proposed by Build Alternatives 1, 2, and 3 of the proposed project.
- The Euclid Street/Ellis Avenue undercrossing bridge would be modified and extended as part of the proposed project.
- Two railroad overheads would be modified and extended as part of the proposed project. The freeway passes over the Union Pacific Railroad (UPRR) on the Bolsa Overhead (Bridge No. 55-269 at PM 17.21) and the U.S. Navy Railroad on the Navy Overhead (Bridge No. 55-272 at PM 18.36). Both railroad overheads would be widened, required

railroad clearances would be maintained, and a crash cushion would be installed at the UPRR overhead.

- Improvements at each interchange within the project limits would be undertaken to provide the following standard features:
 - Left- and right-side shoulders on on-/off-ramps
 - Increased on-ramp storage capacity for ramp meters
 - Removal of HOV bypass lanes from on-ramps, pending individual analysis of each on-ramp and approval by the Department and Federal Highway Administration (FHWA)
 - Increased off-ramp storage capacity at local street intersections
 - Additional through and turn lanes at intersections of ramps and local streets
- Each build alternative would include interchange reconfigurations at Euclid Street, Ellis Avenue, Brookhurst Street, Magnolia Street, Warner Avenue, Beach Boulevard, and Westminster Boulevard.
- The build alternatives would provide appropriate pedestrian facilities on overcrossings and along arterials within interchanges.
- Maintenance vehicle pullouts (MVP) would be included in various locations under each build alternative.
- Each build alternative would require relocation of existing utilities (e.g., electrical lines, irrigation water supply lines, underground natural gas pipelines, telecommunication lines) currently present within the I-405 ROW limits.
- The build alternatives would require modification of existing stormwater drainage channels and construction of new drainage and/or retention facilities necessary to accommodate project construction and provide sufficient drainage capacity to accommodate future runoff volumes generated with the built project in place.
- Each build alternative would add water quality Best Management Practices (BMPs).
- At various locations, new or reconstructed soundwalls and retaining walls would be constructed. Replacement walls would be constructed in areas where sections of existing walls must be modified to accommodate the proposed project.
- Landscaping and hardscaping elements would be included with each build alternative.
- Some design exceptions would be needed to respond to certain ROW constraints and existing non-standard features of the roadway.
- Several Transportation System management (TSM) and Transportation Demand management (TDM) measures may be incorporated into each of the build alternatives.

Unique Features of Build Alternatives

Alternative 1 – Add One GP Lane in Each Direction

Alternative 1 would add a single GP lane in each direction of I-405 from Euclid Street to the I-605 interchange. Figures 1-4 and 1-5 display the proposed I-405 lane configurations associated with the proposed build alternatives.

Alternative 1 would provide a full standard highway cross section, with 12-ft-wide mainline travel lanes as well as 10-ft-wide shoulders on both left (inside) and right (outside) sides in both directions.

Alternative 1 would provide continuous access between the HOV and GP lanes. On July 31, 2007, the Department approved a Project Study Report (PSR) for a separate project (EA 0J440K) to provide continuous ingress and egress from the HOV lanes on the entire length of I-405 in Orange County. This separate project has not yet been programmed or funded; however, the proposed continuous access would be implemented as part of Alternative 1 of the proposed project for the segment of I-405 between Euclid Street and I-605.

Under Alternative 1, auxiliary lanes would be added at various locations to provide efficient merge and diverge operations. In the northbound (NB) direction, the existing auxiliary lane from the Magnolia Street on-ramp to the Beach Boulevard off-ramp would be retained. Additional NB auxiliary lanes would be provided at the following locations:

- At the approach to the Euclid Street/Ellis Avenue off-ramp.
- From the Seal Beach Boulevard on-ramp to the westbound SR-22/7th Street off-ramp.

In the southbound (SB) direction, the existing auxiliary lane from the Beach Boulevard on-ramp to the Magnolia Street off-ramp would not be retained. The existing auxiliary lane from the SR-22/7th Street on-ramp to Seal Beach Boulevard would be retained, as would the existing auxiliary lane from the Harbor Boulevard on-ramp to the Fairview off-ramp. An additional auxiliary lane would be included between the Euclid/Ellis on-ramp and the Harbor Boulevard off-ramp.

In the northern segment of the project area where SR-22 and I-405 overlap, Alternative 1 would result in a freeway with nine through lanes in each direction. For traffic in the left lanes, including the HOV lanes, signage would be provided far enough upstream to accommodate the required number of lane changes to properly exit the freeway.

Alternative 2 – Add Two GP Lanes in Each Direction

Alternative 2 would add one GP lane in each direction of I-405 from Euclid Street to the I-605 interchange (as in Alternative 1), plus add a second GP lane in the NB direction from Brookhurst

Street to the SR-22/7th Street interchange and a second GP lane in the SB direction from the Seal Beach Boulevard on-ramp to Brookhurst Street (see Figures 1-4 and 1-5).

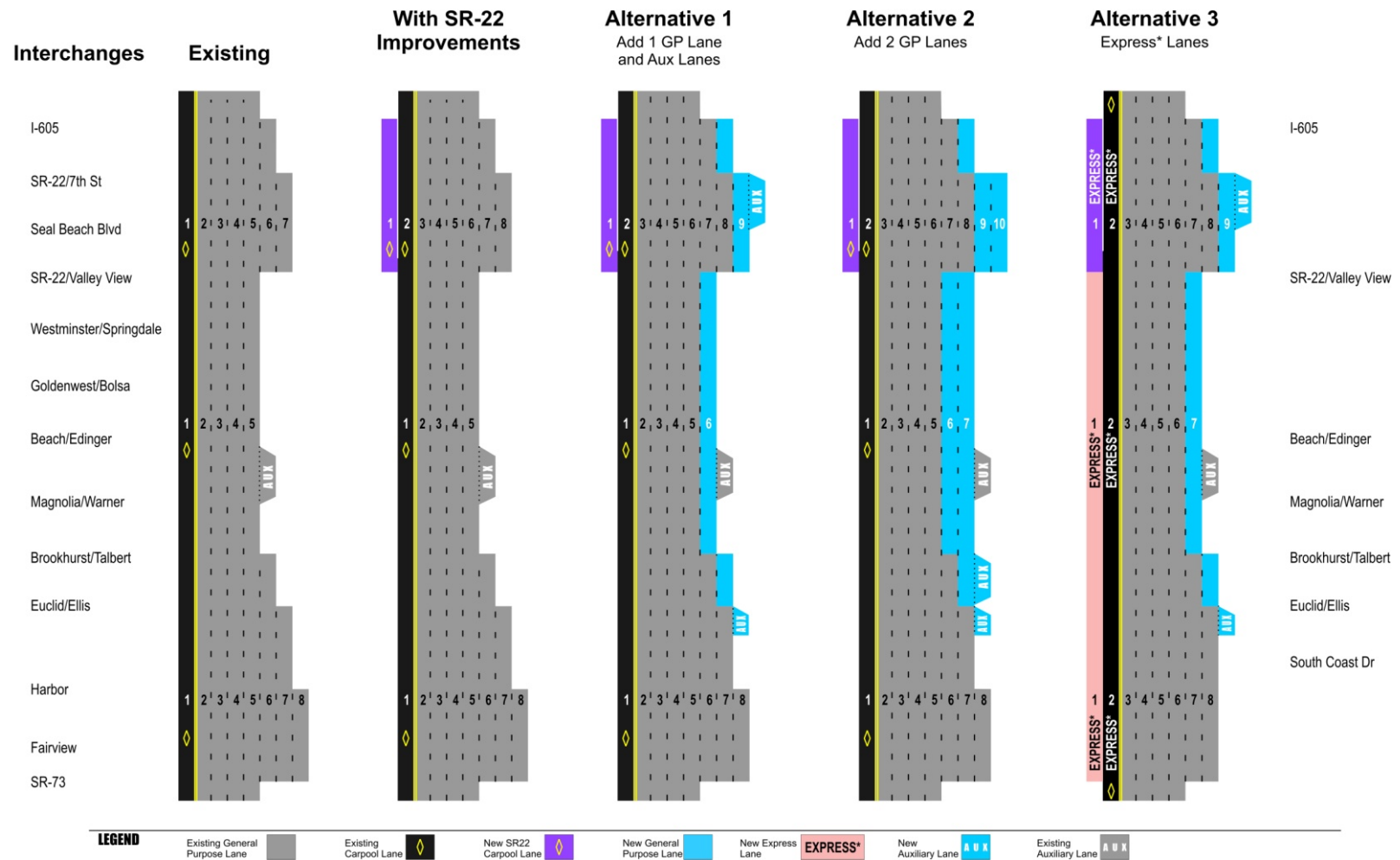
Alternative 2 would provide a full standard highway cross section, with 12-ft-wide mainline travel lanes and shoulders on the left and right sides in both directions. Right side (outside) shoulders would be 10-ft-wide, while left side (inside) shoulders would have a maximum width of 10 ft with a provision for a widened left shoulder for HOV enforcement areas under consideration.

Similar to Build Alternative 1, Build Alternative 2 would provide continuous access between the HOV and GP lanes.

Under Alternative 2, auxiliary lanes would be added at various locations to provide efficient merge and diverge operations. In the NB direction, the existing auxiliary lane from the Magnolia Street on-ramp to the Beach Boulevard off-ramp would be retained. A NB auxiliary lane would be provided at the northerly approach to the Euclid/Ellis off-ramp, as well as between the Euclid/Ellis on-ramp and the Brookhurst Street/Magnolia Street off-ramp.

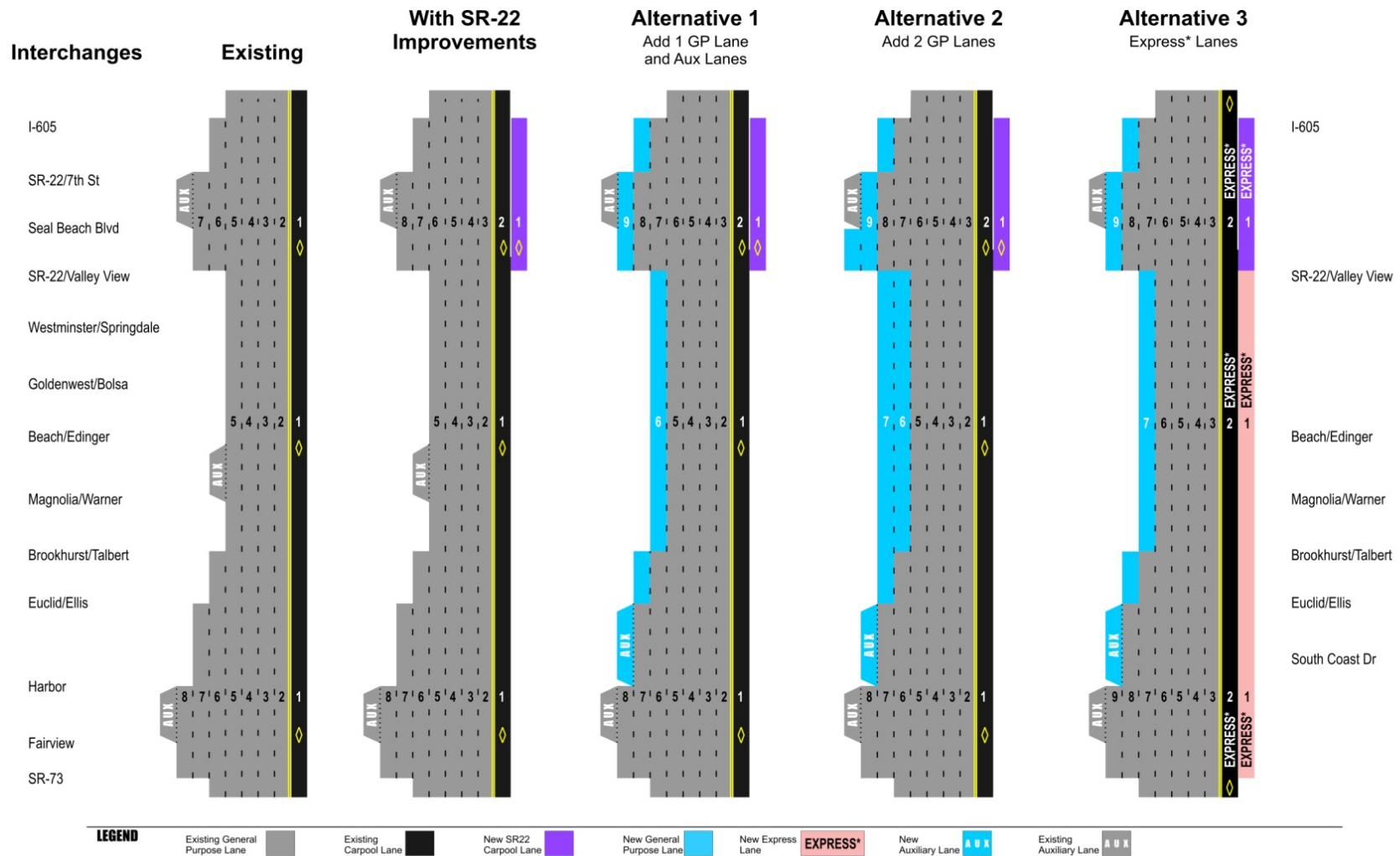
In the SB direction, the existing auxiliary lane from the Beach Boulevard on-ramp to the Magnolia Street off-ramp would not be retained. The existing auxiliary lane from the SR-22/7th Street on-ramp to Seal Beach Boulevard would be retained, as would the existing auxiliary lane from the Harbor Boulevard on-ramp to the Fairview off-ramp. An additional auxiliary lane would be included between the Euclid/Ellis on-ramp and the Harbor Boulevard off-ramp.

In the northern section of the project area where SR-22 and I-405 overlap, Alternative 2 would result in a freeway with 9-10 through lanes in each direction. Signage would be provided far enough upstream to accommodate the required number of lane changes to exit the freeway for traffic in the left lanes, including the HOV lanes.



Source: Parsons 2010

Figure 1-4: Lane Configurations of Northbound Build Alternatives



Source: Parsons 2010

Figure 1-5: Lane Configurations of Southbound Build Alternatives

Alternative 3 – Express Facility

Alternative 3 would add one GP lane in each direction of I-405 from Euclid Street to the I-605 interchange (as in Alternatives 1 and 2), plus add a tolled express lane in each direction of I-405 from SR-73 to I-605. The tolled express lane would be placed beside the existing HOV lane in each direction. The existing HOV lanes and new toll lanes would be managed jointly as an Express Lane Facility with two lanes in each direction (see Figures 1-4 and 1-5).

Operation of the Express Lane Facility would provide preferential toll treatment for HOVs. All vehicles in the express lanes, tolled or free, would be able to use both lanes of the Express Lane Facility. Tolls for use of the Express Lane Facility would be collected exclusively by electronic media. Signing related to the Express Lane Facility would provide both toll and access information to motorists before entering each segment of the Express Lane Facility.

Alternative 3 would provide a full standard highway cross section, with 12-ft-wide mainline travel lanes and shoulders on the left and right sides in both directions. Right side (outside) shoulders would be 10-ft-wide, while left side (inside) shoulders would have a maximum width of 10 ft with a provision for a widened left shoulder for enforcement areas under consideration. The joint HOV/toll lane Express Lane Facility would be separated from the GP lanes by a 1 to 4-ft buffer.

Under Alternative 3, auxiliary lanes would be added at various locations to provide efficient merge and diverge operations. The existing auxiliary lane from the Magnolia Street on-ramp to the Beach Boulevard off-ramp would be retained. Additional NB auxiliary lanes would be provided at the northerly approach to the Euclid/Ellis off-ramp, and between the Seal Beach Boulevard on-ramp and the SR-22/7th Street off-ramp.

In the SB direction, the existing auxiliary lane from the Beach Boulevard on-ramp to the Magnolia Street off-ramp would not be retained. The existing auxiliary lane from the SR-22/7th Street on-ramp to Seal Beach Boulevard would be retained, as would the existing auxiliary lane from the Harbor Boulevard on-ramp to the Fairview off-ramp. An additional auxiliary lane would be included between the Euclid/Ellis on-ramp and the Harbor Boulevard off-ramp.

1.5 CONSTRUCTION SCHEDULE AND PHASING

Construction of the proposed improvements is planned to commence in 2015. The anticipated completion date is 2020. Construction staging area locations will be finalized during the design phase, but are anticipated to generally be located within the existing right-of-way at interchange locations. In addition, temporary ramp closure locations have been identified and methods to reduce impacts to the surrounding communities are addressed in the Ramp Closure Study (RCS)

(Appendix C). The draft TMP for the proposed project has also been prepared (Appendix D) to address traffic management issues and identify measures to minimize impacts during project construction. The TMP will be finalized during the design phase.

1.6 STUDY AREA BOUNDARY FOR COMMUNITY IMPACT ASSESSMENT

The assessment of community impacts utilizes a methodology by which potential impacts to a community or populations from a proposed transportation project can be evaluated. The Department's Standard Environmental Reference (SER) Environmental Handbook, Volume 4: Community Impact Assessment (CIA Handbook) provides a compilation of laws, guidelines, and procedures that should be addressed as part of the project development and planning process (Caltrans 1997). As stated in the CIA Handbook, a CIA should consider how the proposed project activity would affect the surrounding people, institutions, neighborhoods, communities, organizations, and larger social and economic systems.

Delineation of the proposed project study area represents the first step in the CIA preparation as it facilitates the identification and examination of where community impacts are expected to occur. As shown in Figure 1-2 and discussed previously, the proposed project extends from south of Bristol Street in the City of Costa Mesa to I-605 in the unincorporated Orange County community of Rossmore, covering a linear distance of approximately 14 miles. The proposed project traverses eight municipalities located in Orange County, including the cities of Costa Mesa, Fountain Valley, Garden Grove, Huntington Beach, Los Alamitos, Seal Beach, Westminster, and unincorporated Orange County (Rossmore).

The study area for the I-405 Improvement Project includes a region defined to encompass both direct (primary) and indirect (secondary) impacts associated with the proposed project. The CIA study area for the analysis of community impacts is composed of various jurisdictions and communities. The study area boundary is designed to facilitate the integration and analysis of aspects of community cohesiveness and the spatially and temporally diverse nature of the proposed project.

Due to the extended north-south nature of the proposed project, multiple communities or neighborhoods with diverse demographics, spatial characteristics, and attributes are located within each of the eight municipalities. Figure 1-2 shows the location of several defined communities within each jurisdiction that are located in the vicinity of the I-405 corridor. Figure 1-2 shows the location of the proposed project within each jurisdiction that is located in the vicinity of the I-405 Project. The surrounding communities have the potential to experience impacts associated with the proposed project. In addition, the beneficial effects of increased capacity would be realized beyond those adjacent communities.

General and Community plans, which are focused planning policy documents for a specific region, can help identify goals of each community in relation to growth and transportation, identify key community features, and locate community facilities and defined neighborhoods. The inclusion of census tracts along the length of the proposed project allows the specific quantification of a wide variety of demographic variables within each community being studied along the I-405 corridor. This includes population estimates and population trends, growth or decline, economic trends, and housing characteristics. School district boundaries are identified as they reflect where schools are located in relation to where families are living. It is, however, common that communities, census tracts, and school districts share boundaries. By identifying these boundaries in relation to the proposed project, community impacts can then be assessed at defined locations within a community in relation to their surroundings, while also considering the aspects of community cohesiveness, or the degree to which residents have a "sense of belonging" to their neighborhood.

The identified community plans, census tracts, and school district boundaries comprising the study area have been used to assist in determining which communities, neighborhoods, and business centers may be affected due to the construction and post-construction phases of the proposed project. The CIA Handbook identifies four main community features that should be considered in a CIA. These include land use, buildings/structures, transportation facilities, and neighborhood and community features. Each of these types of community features may be subject to direct or indirect impacts as a result of the proposed project.

Land affected by the proposed project may include developable land areas that would become more or less accessible upon completion of the proposed project. Buildings/Structures that may be affected by the proposed project include businesses, community centers, or schools that would be removed, relocated, or made more or less accessible as a result of the proposed project. Transportation features that may be subject to direct or indirect impacts include major roads, railroad lines, and pedestrian overcrossings and corridors which include sidewalks, trails, and bike lanes, as well as general access within the area. Community facilities that may be subject to impacts include parks, neighborhoods, business, community centers, schools, and libraries.

1.6.1 Area of Direct Impacts

The area of direct impacts is designed to encompass the area of greatest intensity of socioeconomic impacts that may result from the proposed project and includes the proposed project footprint (i.e., area proposed for construction). This may include residential or commercial building or property relocation, the potential relocation of existing community facilities and services, air quality and noise impacts, visual impacts, and traffic access issues, in

addition to direct economic effects including construction-related employment. All post-construction right-of-way (ROW) activities associated with the proposed project are anticipated to be limited to the area of direct impacts. To effectively analyze the extent of direct impacts associated with the proposed project, the CIA study area has been delineated using proposed construction area limits and is shown in Figures 1-6 through 1-8. The direct impact area is not expected to change throughout the duration of the proposed project implementation, as the main construction staging areas, business relocations, and other construction-related impacts have been identified within this area. The direct impact area is approximately 14 miles long and runs along the length of the proposed project and varies in width.

1.6.2 Area of Indirect Impacts

As additional impacts associated with the proposed project can occur at a distance from the area of direct impacts, a broader, non uniform boundary has been estimated for the analysis of indirect impacts. Indirect impacts associated with the proposed project may include temporary traffic and circulation impacts or changes to the existing air quality and noise conditions. The area of indirect impacts was delineated through a combination of adjacent municipal and local planning boundaries as well as contiguous census tracts, school districts, and community facilities that are partially within or immediately adjacent to the area of direct impacts. For the assessment of impacts to community cohesion, it is important to recognize that specific neighborhoods, developments, subdivisions, or other areas may have internal physical features or social aspects where an impact in one part may affect the whole. Also, the delineation of these areas may not be contiguous with tract, district, or facilities boundaries. A total of 38 census tracts of varying size are located within the study area, as discussed in Chapter 4 (Social Considerations) and shown in Figure 4-1. The total area of secondary impacts varies and is predicated on the environmental parameter analyzed. The majority of the study area is located within the cities of Costa Mesa, Fountain Valley, Westminster, and Seal Beach, while the remaining portions of the study area are located in Garden Grove, Huntington Beach, Los Alamitos, and the unincorporated community of Rossmoor.

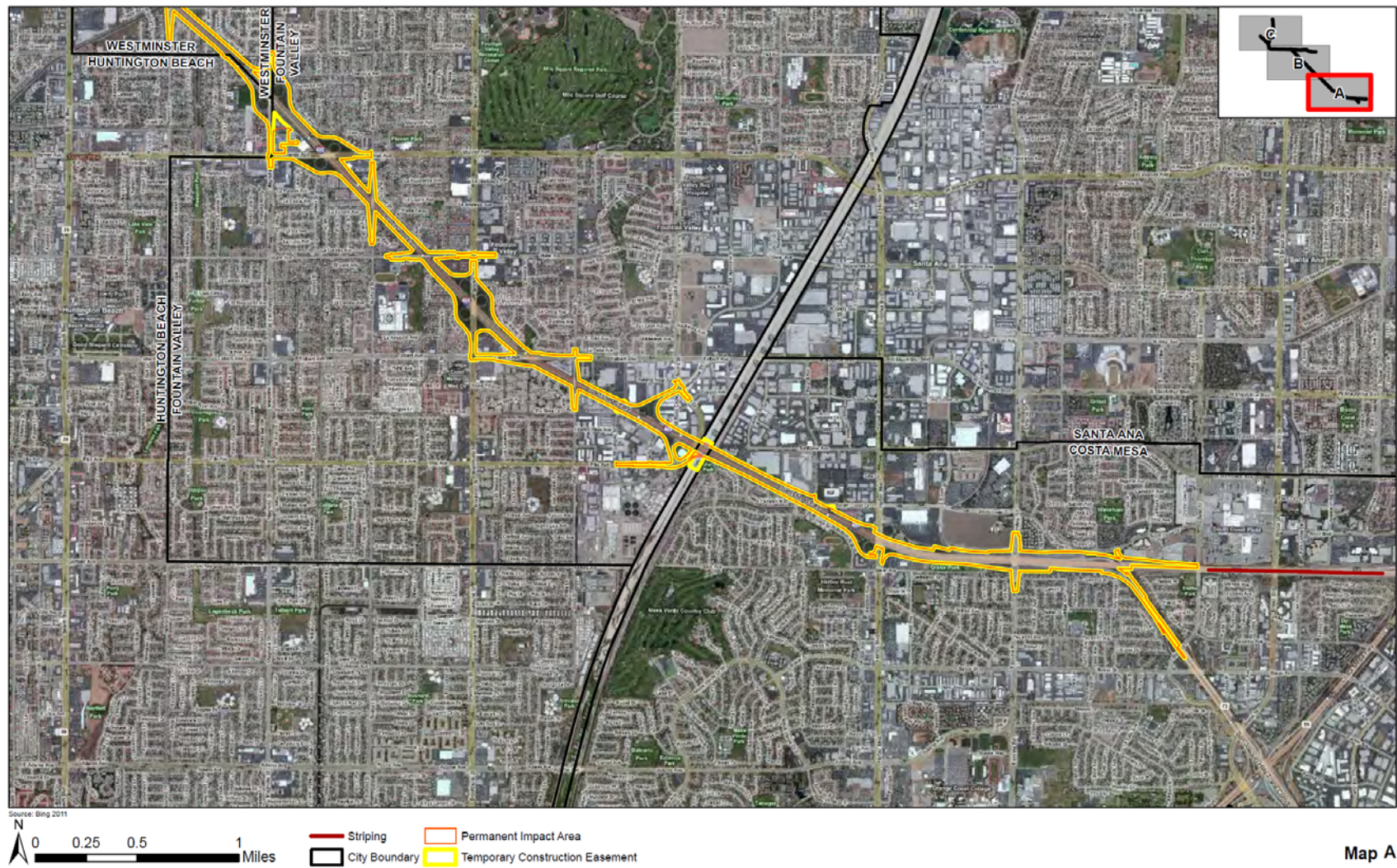


Figure 1-6: Proposed Project Construction Limits (Segment 1)



Figure 1-7: Proposed Project Construction Limits (Segment 2)



Figure 1-8: Proposed Project Construction Limits (Segment 3)

1.7 CUMULATIVE IMPACT ASSUMPTIONS

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this proposed project. A cumulative effects assessment looks at the collective impacts posed by individual land use plans and planned or anticipated projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time. The area of indirect impacts is also considered the general area that has the potential to experience cumulative community impacts with some cumulative impacts possible at the community level for the geographically smaller municipalities. Cumulative impacts are addressed within the individual chapters of this CIA. Table 1-1 contains a list of reasonably foreseeable projects which could be implemented during construction of the proposed project.

1.8 METHODOLOGY

Analysis methodologies for the environmental parameters evaluated in the CIA are provided below and were based upon guidance contained in the SER and CIA Handbook. Additional guidance related to the structure and approach of the study was provided by FHWA publications such as Community Impact Assessment- A guide for Transportation, as well as a variety of resources available through the FHWA's CIA website.

1.8.1 Land Use and Planning

The description of existing and planned land uses employed a number of resources including windshield surveys, aerial maps, and review of general plan and zoning maps for the affected jurisdictions. The identification of developable land and the discussion of land use trends utilized the resources previously noted and communication with planning staff for the affected jurisdictions. Jobs/housing balance information for the corridor (including County and individual jurisdictions) was derived from data developed by the Southern California Association of Governments, the designated Metropolitan Planning Organization for the Orange and Los Angeles County areas. Farmland information (including Williamson Act contract status) was derived from the California Department of Conservation to determine the status of farmland along the proposed project corridor.

**Table 1-1
Reasonably Foreseeable Projects**

Project Name	Project Location	Project Description	Anticipated Completion Date
SR-22 West County Connectors (WCC) Project	In cities of Garden Grove, Westminster, Seal Beach, Los Alamitos, Long Beach and the Community of Rossmore.	The WCC Project will link high occupancy vehicle (HOV) lanes/carpool lanes on the San Diego Freeway (I-405) with those on the Garden Grove Freeway (SR-22) and San Gabriel River Freeway (I-605) to create a seamless HOV connection amongst the three freeways.	Currently constructing the West Segment. Scheduled for completion in 2014.
Costa Mesa Freeway (SR-55) Improvements	SR-55 between SR-22 and I-405 and between SR-91 and SR-22, in Costa Mesa	Add new lanes to SR-55 between SR-22 on the north and I-405 on the south and improvements on SR-55 between SR-91 on the north and SR-22 on the south. This is a part of Measure M projects. The project will increase freeway capacity, reduce congestion and smooth traffic flow by adding new lanes and delivering operational improvements between interchanges.	Construction is in stages and is scheduled to be completed in 2015.
Caltrans Highway Restriping (ID: 12-0J4404)	405 – PM 0.0-PM 24.2 In cities of Irvine and Seal Beach	Remove existing HOV buffer and restripe freeway to provide a continuous HOV access and standard GP lane shoulders in Orange County from I-5 in Irvine to I-605 in Seal Beach.	Estimated completion date 2012.
Caltrans Highway Paving (ID: 12-0K5104)	PM 9.5-17.7 Costa Mesa to Westminster	Cold plane asphalt concrete pavement and hot mix asphalt concrete, NB I-405 off-ramp to WB Bolsa Ave and SB on-ramp from Bristol to NB I-405 at Euclid/Santa Ana River.	Estimated completion in 2010.
Caltrans Highway Paving (ID: 12-0L5404)	PM11.5-16.9, in cities of Costa Mesa, Fountain Valley, Westminster, and Huntington Beach	Overlay 0.1' RHMA-type G	Estimated completion date 2011.
Amstar Red Oak Project	7302-7400 Center Avenue, across from Goldenwest College. Southeast Corner of Gothard Street and Center Avenue, City of Huntington Beach	The applicant, Red Oak Investments LLC, proposes to develop the 3.8 acre site with approximately 440 luxury residential units in five residential stories, located above approximately 10,000 square feet of street level retail and commercial uses. Open space amenities will be included.	Entitlements Approved. Environmental Impact Report, Zoning Map Amendment, General Plan Amendment, and Conditional Use Permit by Planning Commission completed in 2008. Construction schedule is not available.
Beach and Edinger Corridors Specific Plan	Along Beach Boulevard, from the Coastal Zone boundary in the south to Edinger Avenue, and along Edinger Avenue from Beach westward to Goldenwest Street, City of Huntington Beach	A 459 acre project along the city's two major corridors to allow for mixed use development. The project amends the following: the General Plan Amendment to change the various land use categories within the Beach and Edinger Corridors to Mixed Use; Zoning Map Amendment to reflect Beach and Edinger Corridors Specific Plan; and Zoning Text Amendment to adopt the Specific Plan document. Overall, buildout	Effective April 16, 2010

Project Name	Project Location	Project Description	Anticipated Completion Date
		of the Specific Plan (estimated at 2030) could result in the addition of up to 6,400 new dwelling units, 738,400 sf of retail uses, 350 hotel rooms, and 112,000sf of office uses.	
The Village of Bella Terra Development	Huntington Beach 7777 Edinger Avenue Adjacent to I-405 Project corridor (less than ½ mile away)	The site is bordered by Center Avenue to the north, Edinger Avenue to the South, the Bella Terra mall to the east and a railroad right-of-way and commercial property to the west. The applicant is proposing General Plan Amendments and Zoning Text Amendments to allow development of a multi-level mixed-use retail (ranging from 138,085 to 414,255 sf) and residential development (ranging from 538 to 713 units).	Entitlements Approved (EIR: October 14, 2008; GPA/ZTA: November 17, 2008). The Addendum to EIR 2007-03 was prepared in August 2010. Construction is scheduled to be completed in 2012; full occupancy in 2014.
Costco/DJM Development	Village of Bella Terra-7777 Edinger Avenue, City of Huntington Beach	On March 15, 2010, the Planning and Building Department received an application for a new Costco as part of the Village at Bella Terra development. The 154,113 sq ft Costco will include tire sales/installation, outside food service, and a gas station. Additionally, the Village at Bella Terra will include up to 468 multi-family residential units with 30,000 sq ft of additional retail. The proposal includes demolition of the former Mervyns and Montgomery Wards. The entitlement application includes a Zoning Text Amendment, General Plan Amendment, Site Plan Review and Environmental Assessment.	A public hearing took place in August 2010. Construction schedule is not available.
Measure M Project ID L: Traffic Light Synchronization Program	Countywide	OCTA is currently working with Caltrans and local cities to develop a master plan for countywide synchronization. As plans for future improvements develop, the \$8 million Measure M and state funded Traffic Light Synchronization Program will synchronize 10 roadways between 2009 and 2011. The project would coordinate traffic signals in key corridors -700 mile network with 2000 signals (includes local share)	In the process of being established by OCTA, KOA Corporation, WGZE, and Kimley-Horn and Associates. Included in OCTA's 2010 LRTP, on "Preferred Project List". Anticipated completion 2023.
Measure M Project ID L: Bolsa Avenue Bridge Widening	Along Bolsa Ave from Chestnut St. to Goldenwest Ave., City of Westminster	Widen Bolsa Avenue from four to six lanes.	Anticipated completion by 2011. Part of OCTA's 2010 LRTP.
Measure M Project ID L: Seal Beach Boulevard Street Widening Project	At 405 SB off-ramp, City of Seal Beach	Widening project at Interstate 405 southbound off-ramp. City of Seal Beach is lead agency.	Anticipated completion date 2012. Part of OCTA's 2010 LRTP.

Project Name	Project Location	Project Description	Anticipated Completion Date
Measure M Project ID L: Harbor Boulevard/Interstate 405 Interchange Improvements	At the Interstate 405 interchange on NB Harbor Boulevard, southbound on-ramp to Law Court, City Costa Mesa	Channelizations and operations improvements at the Interstate 405 interchange on northbound Harbor Boulevard, southbound on-ramp to Law Court. Lead Agency is City of Costa Mesa.	Part of OCTA's 2010 LRTP. Completed in 2010.
Measure M Project ID L: Goldenwest Bridge Widening	Goldenwest Bridge over I-405, City of Westminster	Widen over Interstate 405 from five to six lanes (addition of one southbound lane). City of Westminster is Lead Agency.	Funded and anticipated to be finished in 2010. Included in OCTA's 2010 LRTP.
Measure M Project ID L: Seal Beach Boulevard Improvement	Seal Beach Boulevard I-405 overpass, City of Seal Beach	Overpass bridge lengthening turn lanes and ramps realignment from Beverly Manor Road to Old Ranch Parkway. City of Seal Beach is Lead Agency.	Funded and anticipated completion 2010; included in OCTA's 2010 LRTP.
Measure M Project ID L: Harbor Boulevard Improvement	Harbor Blvd at Gisler, in City of Costa Mesa	Implement intersection channelization on Harbor Boulevard at Gisler Avenue. Add 5th northbound lane on Harbor Boulevard and right turn lane on Gisler Avenue to northbound Harbor Boulevard, and 2nd southbound Interstate 405 slip on-ramp lane. City of Costa Mesa is Lead Agency.	Included in OCTA's LRTP. Completed in 2010.
Measure M Project ID S: Go Local	Countywide. Westminster, Huntington Beach, Fountain Valley, and other cities in the county	Includes extensions to routes and new structures in Westminster, Huntington Beach, Fountain Valley, and other cities in the county.	Included in OCTA's 2010 LRTP. Anticipated completion in 2035.
Measure M Project ID S: Soundwall Program	Countywide	Construct soundwalls along freeways to minimize traffic noise from freeways into residential neighborhoods.	Included in OCTA's 2010 LRTP, Anticipated completion 2035.
Measure M Project ID S: I-405/Bear Street HOV Access	Bear Street and I-405, City of Costa Mesa	Add HOV ramps at Bear Street	Included in OCTA's 2010 LRTP, Completion date is not available.

Note: Information was obtained by contacting agencies/cities having jurisdiction within the project study area

Source: Parsons, 2011

1.8.2 Growth Inducement

The analytical techniques used to assess growth inducement included the forecast method, one of four analysis techniques recommended by the Department. Chapter 3 (Growth Inducement) contains a detailed description of the analytical technique used and assumptions.

1.8.3 Community Impacts

Socioeconomic data used to perform community impacts related were analyzed using the 2000 U.S. Census (note that the data compiled in 2010 Census are not yet available at the time this CIA was prepared) and the 2008 Southern California Association of Governments' (SCAG) Integrated Growth Forecast data. The data were collected for the census tract, city and county geographies affected by the proposed project. Census tract data were also analyzed utilizing the Geographic Information Systems (GIS) mapping program to determine if environmental justice populations were present along the proposed project. Neighborhood and community cohesion zones were identified based on the major shopping and community centers present along the corridor.

1.8.4 Community Service Facilities

Community services and facilities were identified by a variety of methods including windshield surveys, contacting local service providers, and internet-based research, including Google aerial maps and community facility websites.

1.8.5 Economics

California Employment Development Department data (2010) were collected to evaluate labor force characteristics in affected municipalities along the proposed project. In addition, information contained within the Draft Relocation Impact Memorandum (2010), as well as preliminary engineering right-of-way drawings were also used to identify required acquisitions within the project corridor.

1.9 CONSTRUCTION IMPACTS

As noted previously, the proposed alternatives would widen I-405 for 14 miles within Orange County, extending from in the SR73 in the south to the 605 in the north. Implementation of the proposed project would result in temporary construction-related impacts along the length of the I-405 corridor for approximately 54 months. Construction related impacts could include, but are not limited to, those related to temporary disruptions of vehicular or pedestrian access and

mobility, increased noise, dust generation, light pollution during nighttime construction hours, and visual changes to the existing landscape of the study area. Construction-related impacts are anticipated to occur mainly immediately adjacent to the freeway and are discussed within the individual chapters of this CIA.

It is anticipated that staging areas will be within the body of interchanges. The interchanges are very large and include low value landscaping that is not environmentally sensitive. Utilizing these areas will assist in minimizing the construction impacts to adjacent users. Final staging areas will be confirmed during the design phase of the proposed project.

Construction activity would occur mainly during regular business hours but could also occur at night to minimize disruptions within the corridor or at interchanges.

Construction of interchange improvements (consisting of freeway ramp reconstruction, local arterial improvements, and overcrossing structure replacement) is envisioned to be staggered to minimize impacting two consecutive interchanges or closing two consecutive on- or off-ramps at the same time. Arterials and overcrossing improvements that would add capacity over the existing condition maybe proposed to be constructed first to ease traffic congestion during subsequent construction stages.

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Chapter 2. Land Use and Planning

2.1 AFFECTED ENVIRONMENT

2.1.1 Existing Land Use

The project study area is located within an extensively urbanized area of Orange County. A total of eight municipalities are responsible for land use and zoning oversight within the project study area and include the Cities of Costa Mesa, Fountain Valley, Garden Grove, Huntington Beach, Los Alamitos, Westminster, Seal Beach, and the County of Orange unincorporated community of Rossmore. The dominant land uses within the project study area include low and medium density residential (single- and multiple-family), commercial (neighborhood and regional), institutional (government and schools), light industrial (general manufacturing) and agricultural (row crops).

2.1.2 Development Trend

The area along the I-405 corridor under study is fully developed. Most planned development projects include reuse or redevelopment of existing land uses. Within some project study area communities, parcels have been identified for specific development proposals or are within a Community Redevelopment Area. A discussion of redevelopment plans is included in Section 2.1.4 (Applicable Land Use Plans and Policies) for each respective jurisdiction.

2.1.3 Land Use Designation and Zoning

The following sections include a discussion of general plan and zoning designations in the project study area by local jurisdiction, starting from the southern limit of the project at SR-73, extending north along the I-405 freeway to the project's northern limit at I-605. Figures 2-1 through 2-3 show the generalized land uses along the I-405 corridor within the respective jurisdictions. Note that the generalized land use map is based upon SCAG land use data and in certain instances may not reflect parcel specific information contained within the jurisdictional General Plans.

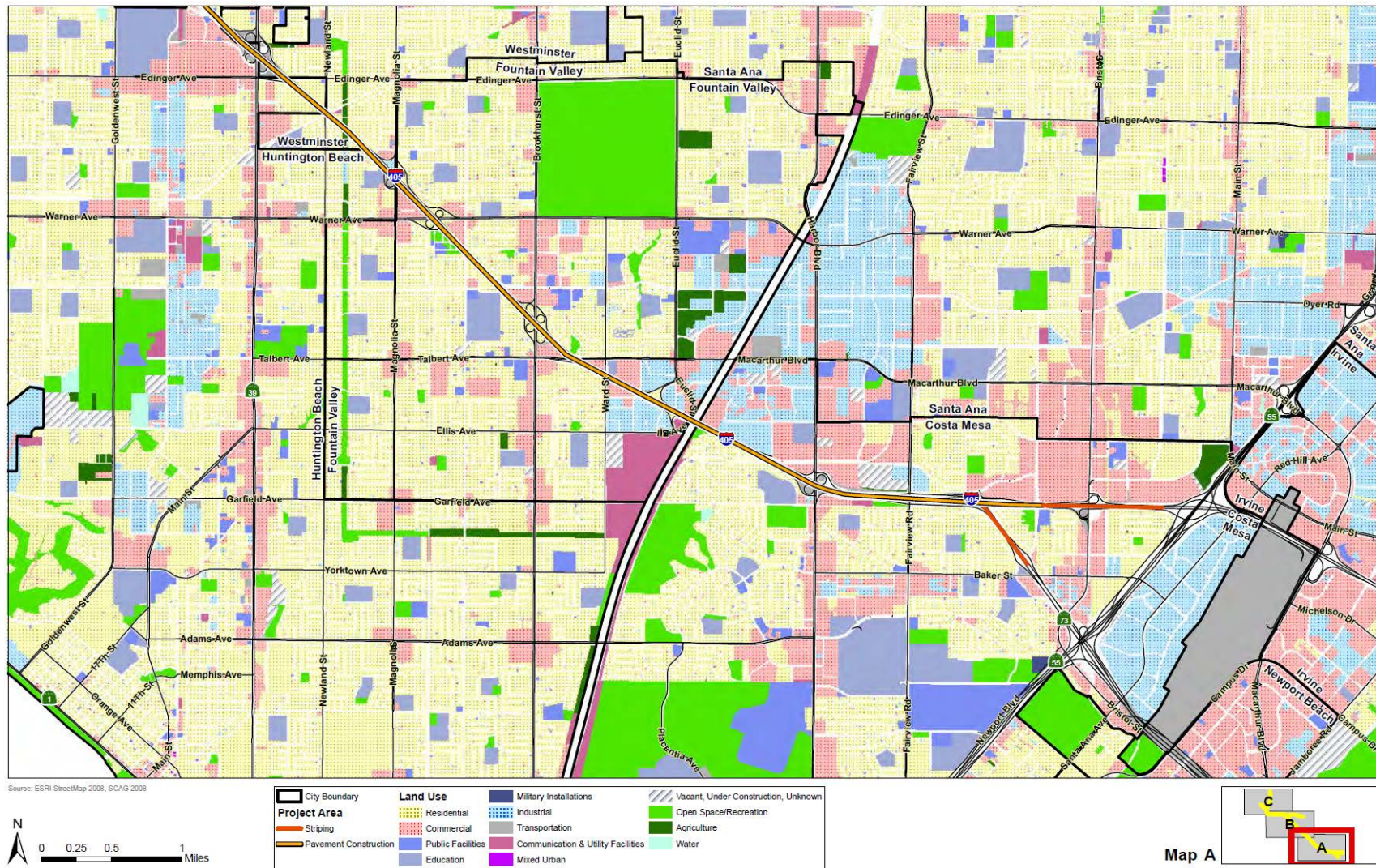


Figure 2-1: Land Uses Contained within the I-405 Corridor (Segment 1)

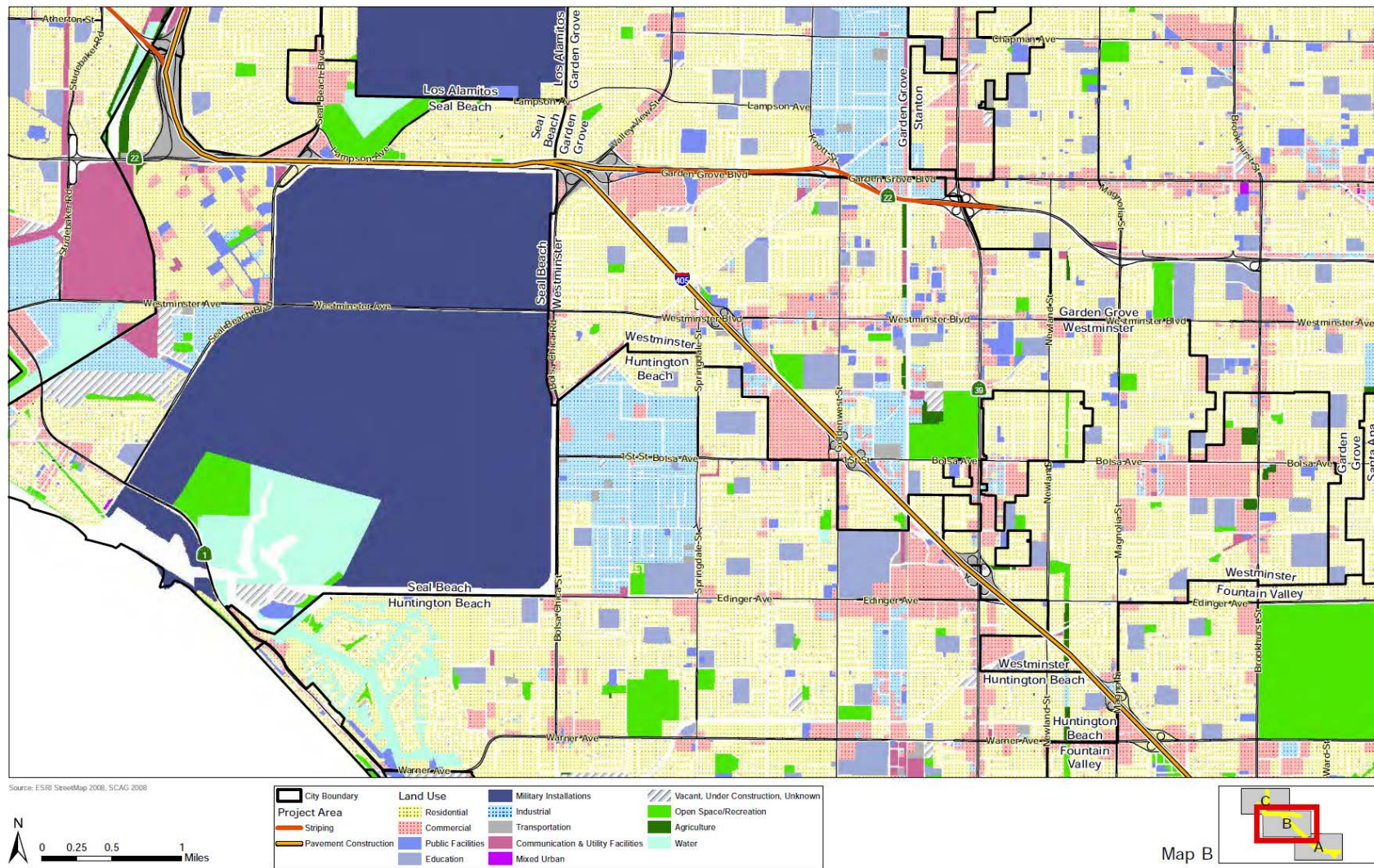


Figure 2-2: Land Uses Contained within the I-405 Corridor (Segment 2)

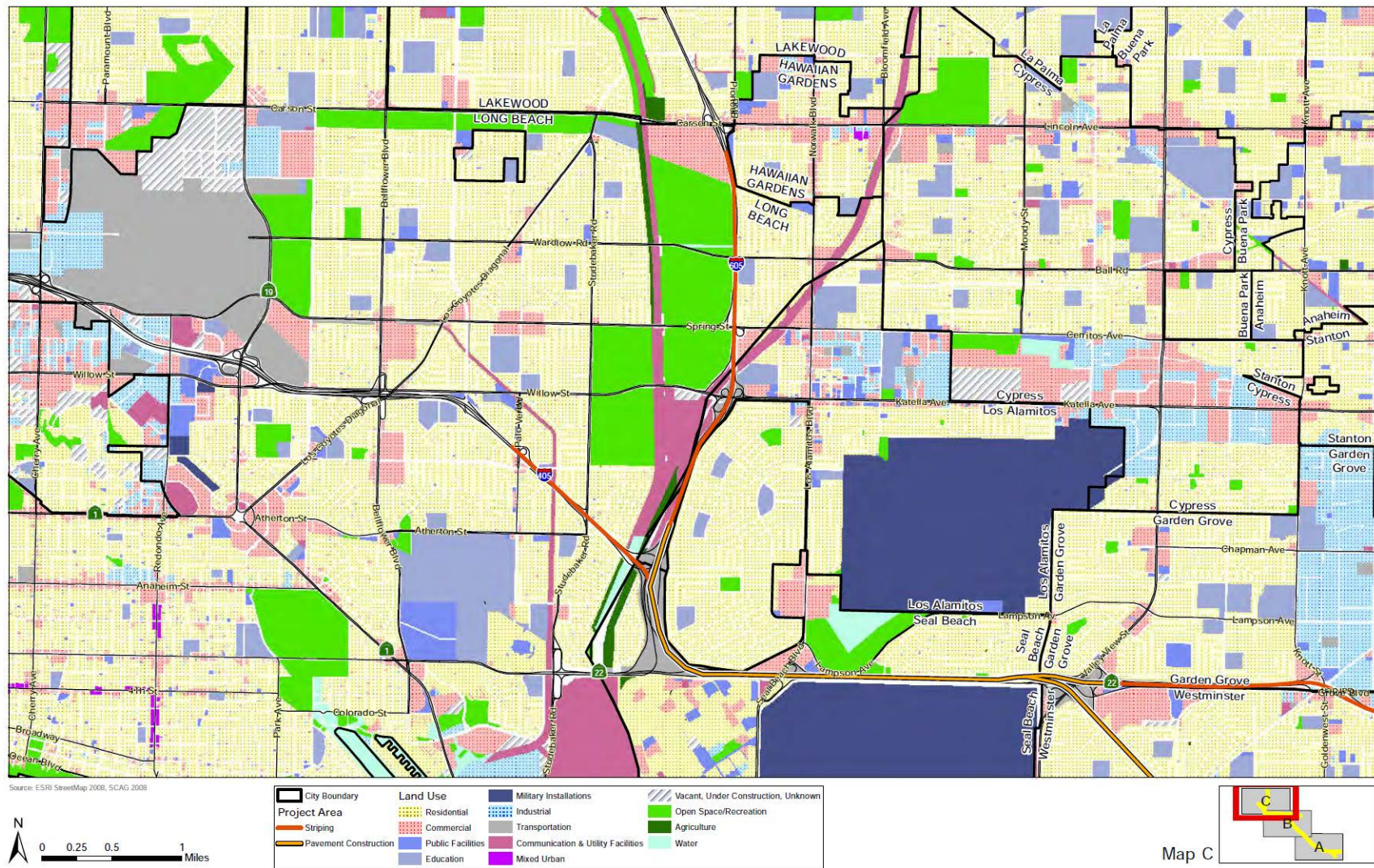


Figure 2-3: Land Uses Contained within the I-405 Corridor (Segment 3)

City of Costa Mesa

The southern terminus of the proposed project is located within the City of Costa Mesa. Based on the City of Costa Mesa General Plan Zoning and General Plan Land Use Map, 2004, low- and medium density residential and institutional land uses dominate the south side of I-405, while light industrial and commercial uses are found immediately to the north. However, an approximately 200 acre parcel currently used for agricultural uses is located immediately north of the I-405 between Fairview Road and Susan Street.

City of Fountain Valley

A mix of residential, commercial, and light industrial land uses are prevalent along both sides of I-405 within the City of Fountain Valley.

City of Garden Grove

Based on the City of Garden Grove Zoning Map (<http://virt-ext.ci.garden-grove.ca.us/public/zoning.htm>, accessed January 5, 2010), residential is the predominant land use along the segment of I-405 located within the City of Garden Grove.

City of Huntington Beach

Based on the City of Huntington Beach Zoning Map, 2008, residential and commercial are predominant land uses along I-405 within the City of Huntington Beach.

City of Los Alamitos

Based on the City of Los Alamitos Zoning Map, 1993, open space, commercial, and light industrial are predominate land uses along I-605 within the City of Los Alamitos.

City of Westminster

Based on the Zoning Map of the City of Westminster, residential and commercial land uses dominate the north and south sides of I-405 within the City of Westminster, although light industrial and institutional are also present.

City of Seal Beach

Based on the City of Seal Beach General Plan Land Use Map, agriculture and residential land uses predominate along I-405 within the City of Seal Beach, although open space (golf course) and commercial uses are also present.

County of Orange

Based on the County of Orange Zoning Map, 2005, land uses along this portion of I-405 located within the unincorporated Orange County community of Rossmoor are entirely residential.

2.1.4 Applicable Land Use Plans and Policies

There are various types of plans that guide development within the project study area. These include General Plans, Redevelopment Plans, Specific Plans, and Master Plans. A General Plan is a comprehensive policy document that defines the type, amount and location of future growth within a community. It must address the following seven State-prescribed elements: land use, circulation, housing, conservation, open space, noise and safety. The Land Use Element of a General Plan identifies the proposed distribution and intensity of housing, business, industry, open space, natural resources, public facilities, waste disposal and other categories of public and private land uses. Each local jurisdiction is required to have an adopted General Plan.

In addition to General Plans, many local jurisdictions' redevelopment agencies have established Redevelopment Plans that further guide and promote the development of certain areas. Specific and Master Plans are also policy documents that are utilized within the framework of a General Plan or Redevelopment Plan, to provide greater guidance and detail for specific development proposals. The Master Plan of Arterial Highways (MPAH) is the document that establishes a countywide roadway network intended to ensure coordinated transportation system development among local jurisdictions in the county. For example, the main purpose of the Orange County MPAH is to describe an arterial highway system that effectively serves existing and adopted future land uses in both incorporated and unincorporated areas of Orange County (http://www.octa.net/arterial_highways_overview.aspx, accessed January 28, 2011 ; Orange County MPAH, 2007).

The following discussion describes the adopted plans within the project study area and applicable goals, policies, or objectives for this project.

City of Costa Mesa

General Plan

The City of Costa Mesa General Plan was adopted in 2002. The Land Use and Circulation Elements of the City of Costa Mesa General Plan provide the following goals, policies, or objectives relevant to this project:

- Objective LU1B: Ensure the long term productivity and viability of the community's economic base.
- LU1C.6: Provide assistance to neighborhoods with excessive noise impacts, such as walls for sound attenuation, development of landscaped greenbelts, etc.

- Objective LU1E: Ensure correlation between buildout of the General Plan Land Use Plan and the Master Plan of Highways.
- LU1F.1: Protect existing stabilized residential neighborhoods, including mobile home parks (and manufactured housing parks) from the encroachment of incompatible or potentially disruptive land uses and/or activities.
- GOAL CIR-1: Provide for a balanced, uncongested, safe, and energy-efficient transportation system, incorporating all feasible modes of transportation.
- CIR-1A.12: Cooperate with adjacent jurisdictions to maintain or improve mobility within the City to achieve a standard level of service no worse than “D” at all intersections under State or joint control. Intersection level of service analyses for General Plan conditions for locations under State or joint control shall be updated periodically and presented to City Council.
- CIR-1A.14: Reduce or eliminate intrusion of commuter through traffic on local streets in residential neighborhoods.
- CIR-1A.19: Minimize circulation improvements that will necessitate the taking of private property on existing developed properties.
- Objective CIR-2A: To coordinate efforts with other regional agencies and pursue operational improvements towards enhancing the capacity of the system of freeways and arterial highways in the City.
- Objective CIR-2B: To promote the use of high occupancy vehicular modes of transportation in and through the City.

Redevelopment Plan

According to a personal communication with Hilda Veturis, Management Analyst of the City of Costa Mesa Redevelopment Agency, on January 6, 2010, the Costa Mesa Redevelopment Agency does not have any redevelopment plans within the project study area.

City of Fountain Valley

General Plan

The City of Fountain Valley General Plan was adopted in 1995. The Land Use and Circulation Elements of the City of Fountain Valley General Plan (updated in 2008) provide the following goals, policies, or objectives relevant to this project:

- Policy 2.5.1: Protect and enhance existing well maintained neighborhood areas.

- Goal 3.1: Provide a transportation system that supports the Land Use Element of the General Plan and facilitates the safe and efficient movement of people and goods throughout the City of Fountain Valley.
- Goal 3.4: Support development of regional transportation facilities which ensure the safe and efficient movement of people and goods from within the City to areas outside its boundaries, and which accommodate the regional travel demands of developing areas outside the City.
- Goal 3.4.4: Support the addition of capacity and noise mitigation improvements such as high occupancy vehicle lanes, general purpose lanes, auxiliary lanes and noise barriers to the San Diego Freeway (I-405).
- Goal 3.5.1: Pursue transportation system management strategies that can maximize vehicle occupancy and minimize average trip length.
- Goal 3.5.6: Encourage the use of multiple occupancy vehicle programs for shopping and other uses to reduce midday traffic.

Redevelopment Plan

The Fountain Valley Agency for Community Development is responsible for redevelopment within the City of Fountain Valley. The project study area is located within the Industrial Area Redevelopment Project Area. This 498 acre industrial area is located adjacent to the I-405 and is comprised of industrial uses (32 percent), light manufacturing, research and development, retail and office (54 percent) and vacant land (14 percent). According to the Five Year Implementation Plan (2005-2009), Fountain Valley Agency for Community Development, there are no applicable goals, policies, or objectives relevant to this project.

City of Garden Grove

General Plan

The City of Garden Grove General Plan was adopted in 2008. The Land Use and Circulation Elements of the City of Garden Grove General Plan provide the following goals, policies, or objectives relevant to this project:

- Policy LU-2.3: Prohibit uses that lead to deterioration of residential neighborhoods, or adversely impact the safety or the residential character of a residential neighborhood.
- Goal CIR-1 A: transportation system that maximizes freedom of movement and maintains a balance between mobility, safety, cost efficiency of maintenance, and the quality of the City's environment.

- CIR-IMP-2B: Coordinate concept design, final engineering, and construction of improvements with Caltrans to provide for the standard of Level of Service D or better operations at intersections under the control of Caltrans.
- Goal CIR-3: Minimize intrusion of commuter traffic on local streets through residential neighborhoods.
- CIR-IMP-5B: Encourage the creation of programs such as Transportation Systems Management (TSM), public transit, carpools/ vanpools, ride-match, bicycling, and other alternatives to the energy-inefficient use of vehicles.
- Goal CIR-11: Continue compliance with regional congestion management, transportation demand, traffic improvement, air quality management, and growth management programs.

Redevelopment Plan

The Garden Grove Agency for Community Development does not have any redevelopment plans within the project study area (Garden Grove Agency for Community Development, 2010).

City of Huntington Beach

The City of Huntington Beach General Plan was adopted in 1996. The Land Use and Circulation Elements of the City of Huntington Beach General Plan provide the following goals, policies, or objectives relevant to this project:

- LU 2: Ensure that development is adequately served by transportation infrastructure, utility infrastructure, and public services.
- I-LU 20: Continue to coordinate with: b. California Department of Transportation, Orange County Transportation Authority, and County of Orange Traffic Planning Division for regional transportation (Interstate 405, Pacific Coast Highway, Beach Boulevard, and Southern Pacific Railroad) and public transit issues.
- *Objective* - CE 1.3: Provide a circulation/transportation system which enhances and minimizes response time needed for emergency vehicles.
- *Policy* – CE 2.2: Minimize, to the greatest extent feasible, "by-pass" or "through" traffic that intrudes into residential neighborhoods.
- *Objective* – CE 3.1: Increase the mass transit opportunities available to Huntington Beach residents in order to reduce traffic impacts on streets and highways and improve air quality.

Specific Plan

North Huntington Center (Specific Plan Area 1). This specific plan permits the construction of mixed uses (commercial and residential) within the area bounded by McFadden Avenue to the north, San Diego Freeway to the east, Center Drive to the south and the Southern Pacific Railroad to the west (approximately 25 acres). The specific Plan was adopted in 1975 and is now largely built out. Based on the conversation of City of Huntington Beach Planning Department staff (Hayden Beckman) on January 6, 2010, no new development projects are currently planned for the site. The North Huntington Center Specific Plan site is located immediately south and adjacent to the I-405 freeway.

Redevelopment Plan

The Redevelopment Agency of the City of Huntington Beach contains one redevelopment district within the project study area. The Huntington Beach Redevelopment Project, Subarea 1 (formerly the Huntington Center Commercial District Redevelopment Project) was established via Ordinance No. 2743 and adopted by the City Council on November 26, 1984. The Huntington Center Commercial District Redevelopment Project encompasses approximately 160 acres of retail and office commercial uses, and is located in the vicinity of Edinger Avenue, Beach Boulevard, and the San Diego Freeway (I-405). According to the Redevelopment Plan for the Huntington Beach Redevelopment Project (2002), the Huntington Center Commercial District Project Area includes the 960,000 square foot Huntington Center regional mall. This redevelopment subarea is located immediately south and adjacent to the I-405 freeway.

The redevelopment policy relevant to this project includes the improvement to public facilities and public infrastructure.

City of Los Alamitos

The City of Los Alamitos General Plan was adopted in 2000. The General Plan's Land Use and Circulation and Transportation Element provide the following goals, policies, or objectives relevant to this project:

- 5-1.4 - Cooperate with neighboring cities, the California Department of Transportation and the Orange County Transportation Authority in making mutually-beneficial transportation improvements.
- 5-2.1 - Protect and preserve residential neighborhoods from the intrusion of cut-through traffic.
- 5-4.3 - Support alternatives to single-occupancy vehicle use.

Redevelopment Plan

The City of Los Alamitos does not have a redevelopment agency and, therefore, there are no redevelopment areas within the project study area.

City of Westminster

The City of Westminster General Plan was adopted in 1996. The General Plan's Land Use and Circulation Elements provide the following goals, policies, or objectives relevant to this project:

- Policy IIA1-12: Maintain and enhance public properties, parks, and roadways.
- Policy IVA2-5: Monitor and assess circulation plans of Caltrans, the County of Orange, and adjacent local agencies to ensure compatibility across jurisdictional boundaries.
- Policy IVA7-1: Ensure that the City's designated truck routes provide efficient access to and from the San Diego and Garden Grove Freeways.
- Policy IVA8-1: Cooperate, to the fullest extent possible with state, county, and regional planning agencies responsible for planning, maintaining, and implementing circulation improvements to ensure coordinated and efficient development of the entire region.
- Policy IVA9-1: Coordinate with Caltrans, and all other appropriate jurisdictions, to evaluate and implement all feasible freeway crossing and access improvements.

Redevelopment Plan

The Westminster Redevelopment Agency is responsible for redevelopment within the City of Westminster. The project study area is located within the redevelopment areas Amendments 1, 2, 4, and 5. Redevelopment is one of the few remaining tools available to California cities to retain enough of the local property tax to reverse deteriorating and/or inadequate conditions of its streets, public facilities, housing and infrastructure. As indicated in the City of Westminster website (<http://www.westminster-ca.gov/depts/cd/redevelopmen/default.asp>, accessed November 2, 2010), without Redevelopment, the City would not have the resources necessary to construct, improve, and repair its infrastructure.

There are no applicable Westminster Redevelopment Agency redevelopment policies applicable to the proposed project.

City of Seal Beach

The City of Seal Beach General Plan was adopted in 2003. The project study area is located adjacent to the City's Planning Areas 3 (Leisure World), 4 (College Park), and 5 (Naval Weapons Station, Wetlands and Wildlife Refuge).

The General Plan's Circulation Element of the City of Seal Beach General Plan provides the following goals, policies, or objectives relevant to this project:

- Monitor and participate in applicable county, regional, state, and federal transportation plans and proposals.
- Provide a circulation/transportation system that enhances and minimizes response time needed for emergency vehicles.
- Improve access to and across I-405 Freeway.
- Support the addition of capacity and noise mitigation improvements such as HOV lanes, general purpose lanes, auxiliary lanes, and noise barriers to the I-405 Freeway.

Redevelopment Plan

The City of Seal Beach does not have a redevelopment agency and therefore, there are no redevelopment areas within the project study area.

County of Orange¹

The Orange County General Plan was adopted in 2005. It is the County's blueprint for growth and development. While the General Plan primarily focuses on the unincorporated area it also addresses regional services and facilities provided by the County such as regional parks, roads, flood control facilities, and other services.

The Land Use and Circulation Elements of the Orange County General Plan provide the following goals, policies, or objectives relevant to this project:

- To plan an integrated land use and transportation system that accommodates travel demand.
- Coordinate with the following transportation planning agencies: Caltrans, OCTA, the Transportation Corridor Agencies and Orange County cities on various studies relating to freeway, tollway and transportation corridor planning, construction, and improvement in order to facilitate the planning and implementation of an integrated circulation system.
- Work with adjacent jurisdictions to cooperatively implement needed measures that would provide high occupancy vehicle lanes, emergency lanes or additional travel lanes, necessary channelization, and/or bicycle lanes whenever warranted and feasible.

¹ Note: Only the unincorporated community of Rossmoor is addressed in this section.

Redevelopment Plan

There are no County of Orange Development Agency areas within the project study area.

Orange County Transportation Authority, 2006 Long-Range Transportation Plan

OCTA is a multi-modal transportation agency that began in 1991 with the consolidation of seven separate agencies. It is governed by an 18-member Board of Directors consisting of 5 county supervisors, 10 city members, 2 public members and the Director of Department of Transportation District 12 as a non-voting member. OCTA serves Orange County residents and travelers by providing countywide bus and paratransit service, Metrolink rail service, the 91 Express Lanes, freeway, street and road improvement projects, motorist aid services and by regulating taxi operations.

New Directions is a long-range transportation plan (LRTP) developed by the OCTA and is designed to address the County's Transportation services. The LRTP lays out three overarching goals: improve mobility; protect transportation resources; and enhance the quality of life. It also outlines performance measures by which progress towards these goals can be measured and mechanisms to refine the implementation strategies.

The OCTA's LRTP provides the following goals, policies, or objectives relevant to this project:

- Improve mobility:
 - Offer safe and reliable choices
 - Provide an accessible transportation network
 - Minimize congestion
 - Develop an integrated transportation network
- Protect transportation resources:
 - Use the existing transportation network efficiently
 - Maintain our infrastructure
 - Promote cost effective and multi-modal solutions
 - Explore creative solutions
- Enhance the quality of life:
 - Promote coordinated transportation and land use planning
 - Minimize community impacts
 - Support economic growth
 - Protect the environment

Bikeways Master Plan

OCTA adopted the 2009 Commuter Bikeways Strategic Plan (CBSP) on May 22, 2009. The plan was originally written in 1995 and is intended to create a comprehensive blueprint of the existing bikeways in the county, as well as propose new facilities to complete a network of bikeways. The 2009 CBSP is provided to the cities and the County to adopt, if they so choose.

The CBSP is a regional planning document that identifies existing and proposed bikeways in Orange County. Through the cooperation of the cities and the County, an inventory was taken of existing bikeways, and priorities for new bikeways were identified. Prioritization of the proposed bikeways, as identified in the plan, was based on several factors, including input from local jurisdictions and the public, as well as connectivity to transit and regional destinations.

In addition to analysis of existing and proposed bikeways, the CBSP also contains information regarding several aspects of bicycle commuting. The CBSP provides information on bicycle amenities, such as bike lockers, parking, signage and trail markings. It also includes discussion of safety and education programs, innovative roadway markings, bikeway fundamentals and funding sources.

Southern California Association of Governments

Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization (MPO) for six southern California counties, including Imperial, Orange, Riverside, San Bernardino, Ventura, and Los Angeles. As such, it is responsible for preparing the Regional Transportation Plan (RTP), which provides the framework for all transportation system improvements planned for its jurisdiction. The RTP is one of several inputs used to develop the Regional Transportation Improvement Plan (RTIP) and State Transportation Improvement Program (STIP). The proposed I-405 improvement within the project limits is included in SCAG's 2008 RTIP Project List (ORA030605), with the following description: "I-405 from SR-73 to I-605 add 1 M F (mixed-flow) Lane each direction and provide additional capital improvements." All of the proposed projects that are incorporated into the 2008 RTIP are consistent with current RTP policies, programs, and projects.

SCAG also conducts intergovernmental reviews of regionally significant projects. This proposed project has been identified as a Regionally Significant Project (<http://www.scag.ca.gov/igr/clist.htm>, accessed on November 1, 2010). Therefore, many of SCAG's regional planning goals, objectives or policies, as embodied in the RTP and Compass Growth Visioning Plan (CGVP) may be relevant to the proposed project.

Regional Transportation Plan

The 2008 RTP presents the transportation vision for the SCAG region through the year 2035 and provides a long-term investment framework for addressing the region's transportation and related challenges. The RTP is the culmination of a multi-year effort focusing on maintaining and improving the transportation system through a balanced approach that considers system preservation, system operation and management, improved coordination between land use decisions and transportation investments, and strategic expansion of the system to accommodate future growth. The following goals and policies contained within the RTP are relevant to the proposed project:

Goals

- Maximize mobility and accessibility for all people and goods in the region
- Ensure travel safety and reliability for all people and goods in the region
- Preserve and ensure a sustainable regional transportation system
- Maximize the productivity of our transportation system
- Protect the environment, improve air quality and promote energy efficiency

Policies

- Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.
- Ensuring safety, adequate maintenance, and efficiency of operations on the existing multimodal transportation system will be RTP priorities and will be balanced against the need for system expansion investments.
- HOV gap closures that significantly increase transit and rideshare usage will be supported and encouraged, subject to Policy #1.
- Progress monitoring on all aspects of the Plan, including timely implementation of projects, programs, and strategies, will be an important and integral component of the Plan.

Compass Growth Visioning Plan

The Growth Visioning Plan has been established to make the SCAG region a better place to live, work and play for all residents regardless of race, ethnicity or income class. The following "Regional Growth Principles" and strategies are relevant to this proposed project:

- Principle 1: Improve mobility for all residents.
 - GV P1.1: Encourage transportation investments and land use decisions that are mutually supportive.
 - GV P1.4: Promote a variety of travel choices.
- Principle 3: Enable prosperity for all people.
 - GV P3.3: Ensure environmental justice regardless of race, ethnicity or income class.
- Principle 4: Promote sustainability for future generations.
 - GV P4.3: Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.

2.1.5 Coastal Zone

The project is not located within the California Coastal Commission's designated coastal zone area.

2.1.6 Wild and Scenic Rivers

The concrete-lined Santa Ana River traverses the I-405 corridor within the City of Fountain Valley. The Santa Ana River is not designated as wild and scenic rivers (National Wild and Scenic Rivers, www.rivers.gov/wildriverslist.html; accessed on November 10, 2010).

2.1.7 Farmland

Agricultural resources along the I-405 corridor within the project limits are largely limited to two locations in the City of Seal Beach and Costa Mesa. Agricultural lands in Seal Beach are located within the United States Naval Weapons Station, Seal Beach. The City of Seal Beach has no permit or issuance process for any activities on the Weapons Station. The City of Seal Beach's General Plan land use map notes this area as "Military." An approximately 200 acre parcel located immediately north of the I-405 between Fairview Road and Susan Street is currently used for agricultural purposes. The City of Costa Mesa General Plan and Zoning maps denotes this property as a commercial center. Future development of this parcel would have to comply with the City of Costa Mesa General Plan and Municipal Code.

2.2 PERMANENT IMPACTS

2.2.1 Land Use and Planning

Land use impacts would occur if proposed project effects would either conflict with General Plan land use designations or zoning, or with applicable environmental plans and policies.

No Build Alternative

The No Build Alternative would not entail improvements to I-405. The existing freeway striping and lane configurations would be unchanged, no ROW acquisitions would be required, and no intersection improvements undertaken. Existing traffic conditions would continue to deteriorate over time. No land use impacts would occur under the No Build Alternative.

Build Alternative 1: Add One General Purpose Lane

Build Alternative 1 would entail the construction of one general purpose lane in each direction of I-405 extending from Euclid Street to the I-605 interchange. To ensure efficient and safe merge and diverge operations, auxiliary lanes would also be constructed. In addition, a number of interchange improvements are planned. A total of 16 local street overcrossings which span I-405 would require replacement to accommodate the new general purpose lane.

According to preliminary engineering design information, improvements along I-405 under Build Alternative 1 would occur mostly within the existing Caltrans ROW. Improvements to adjacent intersections and roadways would extend beyond the existing freeway ROW, affecting 155 public and privately owned parcels, most of which would involve minor ROW acquisition. Only up to 4 businesses are subject to relocation. No adverse effects to land use and zoning designations from these acquisitions are anticipated.

Build Alternative 1 is expected to manage and improve traffic conditions on I-405 and improve transportation reliability and speed. In addition, it is expected to reduce the level of cut-through traffic within adjacent jurisdictions for motorist seeking alternative travel routes. Therefore, Build Alternative 1 is consistent with the goals, objectives and policies of all surrounding communities' General Plans, which generally call for improved traffic conditions on I-405 and a reduction in cut-through traffic. Further, it is expected to have a beneficial effect on all surrounding communities and their respective General Plans as it improves mobility and reduces congestion. This Alternative would follow the goals and policies, as described in Section 2.1.4 (Applicable Land Use Plans and Policies) for the County of Orange, OCTA, SCAG, and Cities of Costa Mesa, Fountain Valley, Garden Grove, Huntington Beach, Los Alamitos, Westminster, and Seal Beach. Table 2-1 provides an evaluation of the proposed project's consistency with the

adopted goals, policies, or objectives of relevant local and regional planning documents previously described above.

Table 2-1
Consistency Analysis with
Adopted Local and Regional Plans for Build Alternatives

Applicable Goal, Policy, or Objective	Consistency Analysis
City of Costa Mesa	
Objective LU1B: Ensure the long term productivity and viability of the community's economic base.	<u>Consistent.</u> Build alternatives would increase accessibility to commercial corridors by adding capacity and reducing commute times.
LU1C.6: Provide assistance to neighborhoods with excessive noise impacts, such as walls for sound attenuation, development of landscaped greenbelts, etc.	<u>Consistent.</u> Build alternatives would include the construction of sound walls in applicable locations, based upon detailed noise measurements to address potential impacts that could result with its implementation. Similarly, landscaping would also be installed within designated locations along the ROW, as determined necessary by the Landscaping Plan.
Objective LU1E: Ensure correlation between buildout of the General Plan Land Use Plan Map and the Master Plan of Highways.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system, thereby reducing commute times which may facilitate land use planning, especially as it relates to new residential and commercial land uses since new residents and shoppers may be attracted to these locations due to increased mobility.
LU1F.1: Protect existing stabilized residential neighborhoods, including mobile home parks (and manufactured housing parks) from the encroachment of incompatible or potentially disruptive land uses and/or activities.	<u>Consistent.</u> Build alternatives would not require residential relocation.
GOAL CIR-1: It is the goal of the City of Costa Mesa to provide for a balanced, uncongested, safe, and energy-efficient transportation system, incorporating all feasible modes of transportation.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It may also reduce cut-through traffic within areas adjacent to I-405, thereby ameliorating traffic impacts on local residents. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips. This would result in a direct reduction in vehicle miles travelled.
CIR-1A.12: Cooperate with adjacent jurisdictions to maintain or improve mobility within the City to achieve a standard level of service no worse than "D" at all intersections under State or joint control. Intersection level of service analyses for General Plan conditions for locations under State or joint control shall be updated periodically and presented to City Council.	<u>Partially Consistent.</u> Build alternatives would improve the level of service along the 14-mile stretch of the I-405 corridor from its projected LOS F in opening year 2020. However, due to normal regional growth, an anticipated improvement to LOS D or better may not be attained.
CIR-1A.14: Reduce or eliminate intrusion of commuter through traffic on local streets in residential neighborhoods.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It may also reduce cut-through traffic within areas adjacent to I-405, thereby ameliorating traffic impacts on local residents.
CIR-1A.19: Minimize circulation improvements that will necessitate the taking of private property on existing developed properties.	<u>Consistent.</u> This alternative would not require business relocation within the City of Costa Mesa.
Objective CIR-2A: To coordinate efforts with other regional agencies and pursue operational improvements towards enhancing the capacity of the system of freeways and arterial highways in the City.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It may also reduce cut-through traffic within areas adjacent to I-405, thereby ameliorating traffic impacts on arterial highways in the City. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips. This would result in a direct reduction in vehicle miles travelled.

Table 2-1
Consistency Analysis with
Adopted Local and Regional Plans for Build Alternatives

Objective CIR-2B: To promote the use of high occupancy vehicular modes of transportation in and through the City.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips.
City of Fountain Valley	
Policy 2.5.1: Protect and enhance existing well maintained neighborhood areas.	<u>Consistent.</u> Build alternatives do not include modifications that could lead to deterioration of a residential neighborhood. Proposed improvements would largely take place within the existing I-405 ROW, although some minor acquisitions may be required. Improvements (e.g., sound walls, auxiliary lanes, overcrossings, etc.) would be similar in nature to those currently in place along the existing freeway.
Goal 3.1: Provide a transportation system that supports the Land Use Element of the General Plan and facilitates the safe and efficient movement of people and goods throughout the City of Fountain Valley.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. Reduced commute times may facilitate land use planning, especially as it relates to new residential and commercial land uses since residents and shoppers may be attracted to these locations due to increased mobility.
Goal 3.4: Support development of regional transportation facilities which ensure the safe and efficient movement of people and goods from within the City to areas outside its boundaries, and which accommodate the regional travel demands of developing areas outside the City.	<u>Consistent.</u> See response immediately above.
Goal 3.4.4: Support the addition of capacity and noise mitigation improvements such as high occupancy vehicle lanes, general purpose lanes, auxiliary lanes and noise barriers to the San Diego Freeway (I-405).	<u>Consistent.</u> Build alternatives would entail the construction of one general purpose lane in each direction of I-405 extending from Euclid Street to the I-605 interchange. To ensure efficient and safe merge and diverge operations, auxiliary lanes would also be constructed. In addition, a number of interchange improvements are planned. Sound walls would be constructed, as necessary and based upon the findings of the Noise Study Report prepared as part of this project.
Goal 3.5.1: Pursue transportation system management strategies that can maximize vehicle occupancy and minimize average trip length.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It may also reduce cut-through traffic within areas adjacent to I-405, thereby ameliorating traffic impacts on arterial highways in the City. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips. This would result in a direct reduction in vehicle miles travelled.
Goal 3.5.6: Encourage the use of multiple occupancy vehicle programs for shopping and other uses to reduce midday traffic.	<u>Consistent.</u> See response immediately above.
City of Garden Grove	
Policy LU-2.3: Prohibit uses that lead to deterioration of residential neighborhoods, or adversely impact the safety or the residential character of a residential neighborhood.	<u>Consistent.</u> Build alternatives do not include modifications that could lead to deterioration of a residential neighborhood, its safety or character. Proposed improvements would largely take place within the existing I-405 ROW, although some minor acquisitions may be required. Improvements (e.g., sound walls, auxiliary lanes, overcrossings, etc.) would be similar in nature to those currently in place along the existing freeway. Safety would be improved since it is anticipated that rear-end and sideswipe accidents due to stop and go traffic and weaving would be reduced.

Table 2-1
Consistency Analysis with
Adopted Local and Regional Plans for Build Alternatives

Goal CIR-1: Provide a transportation system that maximizes freedom of movement and maintains a balance between mobility, safety, cost efficiency of maintenance, and the quality of the City's environment.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips. Safety would be improved since it is anticipated that rear-end and sideswipe accidents due to stop and go traffic and weaving would be reduced. The construction of sound walls would also reduce existing noise levels along portions of I-405 where they are necessary, thereby improving residents' quality of life.
CIR-IMP-2B: Coordinate concept design, final engineering, and construction of improvements with Caltrans to provide for the standard of Level of Service D or better operations at intersections under the control of Caltrans.	<u>Partially Consistent.</u> Build alternatives would improve the level of service along the 16-mile stretch of I-405 corridor from its projected LOS F in opening year 2020. However, due to normal regional growth, an anticipated improvement to LOS D or better may not be attained.
Goal CIR-3: Minimize intrusion of commuter traffic on local streets through residential neighborhoods.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It may also reduce cut-through traffic within areas adjacent to I-405, thereby ameliorating traffic impacts on local streets in the City.
CIR-IMP-5B Encourage the creation of programs such as TSM, public transit, carpools/ vanpools, ride-match, bicycling, and other alternatives to the energy-inefficient use of vehicles.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips. This would result in a direct reduction in vehicle miles travelled.
Goal CIR-11: Continue compliance with regional congestion management, transportation demand, traffic improvement, air quality management, and growth management programs.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips. This would result in a direct reduction in vehicle miles travelled. It is also anticipated to result in reduced air quality impacts and energy usage since vehicle idling time would be reduced. Reduced commute times may facilitate land use planning, especially as it relates to new residential and commercial land uses since residents and shoppers may be attracted to these locations due to increased mobility.
City of Huntington Beach	
LU 2: Ensure that development is adequately served by transportation infrastructure, utility infrastructure, and public services.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. Reduced commute times may facilitate land use planning, especially as it relates to new residential and commercial land uses since residents and shoppers may be attracted to these locations due to increased mobility.
I-LU 20 – The City of Huntington Beach will continue to coordinate with: b. Caltrans, OCTA, and County of Orange Traffic Planning Division for regional transportation (Interstate 405, Pacific Coast Highway, Beach Boulevard, and Southern Pacific Railroad) and public transit issues.	<u>Consistent.</u> Caltrans has developed an extensive outreach effort in order to ensure that all potentially affected jurisdictions and their residents are informed of the planning and implementation process and overall project schedule.
Objective CE 1.3: Provide a circulation/transportation system which enhances and minimizes response time needed for emergency vehicles.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It may also reduce cut-through traffic within areas adjacent to I-405, thereby ameliorating traffic impacts on local streets in the City. It is anticipated that emergency vehicle response times may be improved due to reduced congestion levels on freeway and local streets.
Policy CE 2.2: Minimize, to the greatest extent feasible, "by-pass" or "through" traffic that intrudes into residential neighborhoods.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It may also reduce cut-through traffic within areas adjacent to I-405, thereby ameliorating traffic impacts on local streets in the City.

Table 2-1
Consistency Analysis with
Adopted Local and Regional Plans for Build Alternatives

Objective CE3.1: Increase the mass transit opportunities available to Huntington Beach residents in order to reduce traffic impacts on streets and highways and improve air quality.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips. This would result in a direct reduction in vehicle miles travelled. It is also anticipated to result in reduced air quality impacts and energy usage since vehicle idling time would be reduced.
Huntington Beach Redevelopment Project, Subarea 1	
Improve public facilities and public infrastructure.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. Reduced commute times may facilitate land use planning, especially as it relates to new residential and commercial land uses since residents and shoppers may be attracted to these locations due to increased mobility.
City of Los Alamitos	
5-1.4: Cooperate with neighboring cities, Caltrans and OCTA in making mutually-beneficial transportation improvements.	<u>Consistent.</u> Caltrans has developed an extensive outreach effort in order to ensure that all potentially affected jurisdictions and their residents are informed of the planning and implementation process and overall project schedule.
5-2.1: Protect and preserve residential neighborhoods from the intrusion of cut-through traffic.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It may also reduce cut-through traffic within areas adjacent to I-405, thereby ameliorating traffic impacts on local streets in the City.
5-4.3: Support alternatives to single-occupancy vehicle use.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips.
City of Westminster	
Policy IIA1-12: Maintain and enhance public properties, parks, and roadways.	<u>Consistent.</u> Build alternatives would include the construction of high quality facilities, including fencing, walls, and landscaping. Improvements would be similar in nature to those currently found along I-405.
Policy IVA2-5: Monitor and assess circulation plans of Caltrans, the County of Orange, and adjacent local agencies to ensure compatibility across jurisdictional boundaries.	<u>Consistent.</u> Caltrans has developed an extensive outreach effort in order to ensure that all potentially affected jurisdictions and their residents are informed of the planning and implementation process and overall project schedule.
Policy IVA7-1: Ensure that the City's designated truck routes provide efficient access to and from the San Diego and Garden Grove Freeways.	<u>Consistent.</u> Build alternatives would entail the construction of auxiliary lanes and interchange improvement that would facilitate truck access both to and from the San Diego and Garden Grove Freeways.
Policy IVA8-1: Cooperate, to the fullest extent possible with state, county, and regional planning agencies responsible for planning, maintaining, and implementing circulation improvements to ensure coordinated and efficient development of the entire region.	<u>Consistent.</u> Caltrans has developed an extensive outreach effort in order to ensure that all potentially affected jurisdictions and their residents are informed of the planning and implementation process and overall project schedule.
Policy IVA9-1: Coordinate with Caltrans, and all other appropriate jurisdictions, to evaluate and implement all feasible freeway crossing and access improvements.	<u>Consistent.</u> Build alternatives would entail the construction of a number of interchange improvements. In addition, a total of 16 local street overcrossings which span I-405 would require replacement, since the spans would be inadequate to accommodate the new general purpose lane. These improvements would improve access to and across I-405 within the City.
City of Seal Beach	

Table 2-1
Consistency Analysis with
Adopted Local and Regional Plans for Build Alternatives

Monitor and participate in applicable county, regional, state, and federal transportation plans and proposals.	<u>Consistent.</u> Caltrans has developed an extensive outreach effort in order to ensure that all potentially affected jurisdictions and their residents are informed of the planning and implementation process and overall project schedule.
Provide a circulation/transportation system that enhances and minimizes response time needed for emergency vehicles.	<u>Consistent.</u> Build alternatives would add additional capacity to the freeway system and reduce commute times. It may also reduce cut-through traffic within areas adjacent to I-405, thereby ameliorating traffic impacts on local streets in the City. It is anticipated that emergency vehicle response times may be improved due to reduced congestion levels on freeway and local streets.
Improve access to and across I-405 Freeway.	<u>Consistent.</u> Build alternatives would entail the construction of a number of interchange improvements. In addition, a total of 16 local street overcrossings which span I-405 would require replacement, since the spans would be inadequate to accommodate the new general purpose lane. These improvements would improve access to and across I-405 within the City.
Support the addition of capacity and noise mitigation improvements such as HOV lanes, general purpose lanes, auxiliary lanes, and noise barriers to the I-405 Freeway.	<u>Consistent.</u> Build alternatives would entail the construction of one general purpose lane in each direction of I-405 extending from Euclid Street to the I-605 interchange. To ensure efficient and safe merge and diverge operations, auxiliary lanes would also be constructed. Sound walls would be constructed, as necessary and based upon the findings of the Noise Study Report prepared as part of this project.
County of Orange	
To plan an integrated land use and transportation system that accommodates travel demand.	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips.
Coordinate with the following transportation planning agencies: Caltrans, OCTA, the Transportation Corridor Agencies (County corridor planning and construction) and Orange County cities on various studies relating to freeway, tollway and transportation corridor planning, construction, and improvement in order to facilitate the planning and implementation of an integrated circulation system.	<u>Consistent.</u> Caltrans has developed an extensive outreach effort in order to ensure that all potentially affected jurisdictions and their residents are informed of the planning and implementation process and overall project schedule. In addition, build alternatives would entail the construction a number of improvements intended to increase system capacity and improve travel times.
Work with adjacent jurisdictions to cooperatively implement needed measures that would provide high occupancy vehicle lanes, emergency lanes or additional travel lanes, necessary channelization, and/or bicycle lanes whenever warranted and feasible.	<u>Consistent.</u> Build alternatives would entail the construction of one general purpose lane in each direction of I-405 extending from Euclid Street to the I-605 interchange. To ensure efficient and safe merge and diverge operations, auxiliary lanes would also be constructed. In addition, a number of interchange improvements are planned. No bicycle lanes would be constructed since these vehicles are prohibited from entry onto the freeway system.
Orange County Transportation Authority	
Improve mobility: <ul style="list-style-type: none"> • Offer safe and reliable choices • Provide an accessible transportation network • Minimize congestion • Develop an integrated transportation network 	<u>Consistent.</u> Build alternatives would add capacity to the freeway system and reduce commute times. It is anticipated that some motorists may choose alternative modes of transportation, including public transit or carpooling for both local and regional trips.

Table 2-1
Consistency Analysis with
Adopted Local and Regional Plans for Build Alternatives

Protect our transportation resources: <ul style="list-style-type: none"> • Use the existing transportation network efficiently • Maintain our infrastructure • Promote cost effective and multi-modal solutions • Explore creative solutions 	<u>Consistent.</u> See response immediately above.
Enhance the quality of life: <ul style="list-style-type: none"> • Promote coordinated transportation and land use planning • Minimize community impacts • Support economic growth • Protect the environment 	<u>Consistent.</u> Caltrans has developed an extensive outreach effort in order to ensure that all potentially affected jurisdictions and their residents are informed of the planning and implementation process and overall project schedule. In addition, the majority of the proposed improvements would be constructed within the existing I-405 ROW which would assist in minimizing impacts to adjacent residences and businesses. The proposed improvements would add additional capacity to the freeway system and reduce commute times. Reduced commute times may facilitate land use planning, especially as it relates to new residential and commercial land uses since residents and shoppers may be attracted to these locations due to increased mobility. This may have a secondary effect of generating economic activity.
Bikeway Master Plan: Implement strategic plans outlined in OCTA Commuter Bikeway Strategic Plan, May 2009	<u>Consistent.</u> Build alternatives would preserve existing bikeways and accommodate plan bikeways within the project limits.
Southern California Association of Governments	
Goal: Maximize mobility and accessibility for all people and goods in the region	<u>Consistent.</u> Build alternatives would improve access and mobility of local and regional residents which would allow greater access to goods in the region.
Goal: Ensure travel safety and reliability for all people and goods in the region	<u>Consistent.</u> Build alternatives would increase freeway capacity and freeway speeds. It is anticipated to reduce rear-end and sideswipe accidents due to stop and go traffic and weaving, respectively.
Goal: Preserve and ensure a sustainable regional transportation system	<u>Consistent.</u> See response immediately above.
Goal: Maximize the productivity of our transportation system	<u>Consistent.</u> See response immediately above.
Goal: Protect the environment, improve air quality and promote energy efficiency	<u>Consistent.</u> Build alternatives would increase freeway speeds and encourage transit use and carpooling. Reductions in VMT, air quality impacts and energy usage would occur since vehicle idling time would be reduced.
Policy: Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.	<u>Consistent.</u> Build alternatives would improve access and mobility of local and regional residents which would allow greater access to goods in the region.
Policy: Ensuring safety, adequate maintenance, and efficiency of operations on the existing multimodal transportation system will be RTP priorities and will be balanced against the need for system expansion investments.	<u>Consistent.</u> Build alternatives would be maintained and operated safely. It would not require system expansion investments since it would be constructed within an existing freeway and require negligible right-of-way acquisitions.
HOV gap closures that significantly increase transit and rideshare usage will be supported and encouraged, subject to Policy #1.	<u>Consistent.</u> Although build alternatives are not an HOV gap closure, it would increase transit ridership, carpooling and increase freeway capacity, which in turn could affect gap closure priority decisions.

Table 2-1
Consistency Analysis with
Adopted Local and Regional Plans for Build Alternatives

Progress monitoring on all aspects of the Plan, including timely implementation of projects, programs, and strategies, will be an important and integral component of the Plan.	<p><u>Consistent for Build Alternative 1:</u> Components under Build Alternative 1 (adding one traffic lane in each direction) are included in the 2008 RTP and RTIP. The results of the project in terms of system efficiency and increases to freeway capacity will provide transportation planners and elected officials with information that would allow informed decisions on whether or not to implement similar projects.</p> <p><u>Inconsistent for Build Alternatives 2 and 3:</u> The OCTA is in the process of amending the RTIP to allow adding two traffic lanes in each direction, as proposed under Build Alternatives 2 and 3.</p>
Compass Growth Visioning Plan	
Principle 1: Improve mobility for all residents. GV P1.1: Encourage transportation investments and land use decisions that are mutually supportive.	<u>Consistent:</u> Build alternatives would improve access and mobility of local and regional residents which would allow greater access to land uses and goods in the region.
GV P1.4: Promote a variety of travel choices.	<u>Consistent:</u> Build alternatives would encourage transit usage and carpooling.
Principle 3: Enable prosperity for all people. GV P3.3: Ensure environmental justice regardless of race, ethnicity or income class.	<u>Consistent:</u> Build alternatives would not result in environmental justice impacts. Build alternatives would be largely constructed within the existing I-405 freeway ROW, although some minor partial parcel acquisitions would be required. These acquisitions would not however, generate environmental impacts which are disproportionate to those that would be experienced by the general public.
Principle 4: Promote sustainability for future generations. GV P4.3: Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.	<u>Consistent:</u> Although build alternatives do not include the provision or development of land uses capable of generating growth, it would increase freeway speeds and improved air quality and reduced energy consumption as idling is decreased.

Build Alternative 2: Add Two General Purpose Lanes

Build Alternative 2 would entail the construction of one GP lane in each direction of I-405 extending from Euclid Street to the I-605 interchange. In addition, a second lane in the northbound direction from Brookhurst Street to the SR-22/7th Street interchange would be constructed. A second lane in the southbound direction from the Seal Beach Boulevard onramp to Brookhurst Street would also be constructed. To ensure efficient and safe merge and diverge operations, auxiliary lanes would also be constructed. In addition, a number of interchange improvements are planned. A total of 16 local street overcrossings which span I-405 would require replacement to accommodate the new general purpose lanes.

According to the preliminary engineering design information, improvements along I-405 under Build Alternative 2 would occur mostly within the existing Caltrans ROW. Improvements to adjacent intersections and roadways would extend beyond the existing freeway ROW, affecting 173 public and privately owned parcels, most of which would involve minor ROW acquisition. Only up to 4 businesses are subject to relocation. These encroachments would not preclude continued activities on the affected sites, however, and are not anticipated to shift existing land

uses in the area. The four business relocation/or displacements would be isolated to specific parcels along the alignment and would not result in shifts of land uses outside of the affected parcels. Additionally, the proposed project would consist of the expansion of an existing established freeway corridor and would be consistent with the existing land uses. Therefore, no adverse effects to land use and zoning designations from these acquisitions are anticipated.

The proposed project would convert four businesses to transportation uses; however, this would not substantially affect the land use patterns within the city of Fountain Valley.

Build Alternative 2 is also expected to manage and improve traffic conditions on I-405 and improve transportation reliability and speed. It would help reduce the level of cut-through traffic within adjacent jurisdictions for motorist seeking alternative travel routes. This Alternative would also be consistent with the goals, objectives and policies of the general plans and regional plans previously described above and within Table 2-1 with the exception for the RTIP 2008, which is currently being in the amendment process to allow adding two traffic lanes in each direction as proposed under Alternative 2.

Build Alternative 3: Express Facility

Build Alternative 3 would add one GP lane in each direction of I-405 from Euclid Street to the I-605 interchange (as in Alternatives 1 and 2), plus add a tolled express lane in each direction of I-405 from SR-73 to I-605. The tolled express lane would be placed beside the existing HOV lane in each direction. The existing HOV lanes and new toll lanes would be managed jointly as an Express Lane Facility with two lanes in each direction.

According to the preliminary engineering design information, improvements along I-405 under Build Alternative 3 would occur mostly within the existing Caltrans ROW. Improvements to adjacent intersections and roadways would extend beyond the existing freeway ROW, affecting approximately 189 public and privately owned parcels, most of which would involve minor ROW acquisition. Only up to 4 businesses are subject to relocation. These encroachments would not preclude continued activities on the affected sites, however, and are not anticipated to shift existing land uses in the area. The four business relocation/or displacements would be isolated to specific parcels along the alignment and would not result in shifts of land uses outside of the affected parcels. Additionally, the proposed project would consist of the expansion of an existing established freeway corridor and would be consistent with the existing land uses. Therefore, no adverse effects to land use and zoning designations from these acquisitions are anticipated.

The proposed project would convert four businesses to transportation uses; however, this would not substantially affect the land use patterns within the city of Fountain Valley. Build Alternative 3 is also expected to manage and improve traffic conditions on I-405 and improve transportation

reliability and speed. It would help reduce the level of cut-through traffic within adjacent jurisdictions for motorists seeking alternative travel routes. In addition, the proposed project would increase the capacity of carpooling and transit and the usage of the HOV/toll lane by allowing toll paying single occupant vehicles to utilize this facility. This alternative would also be consistent with the goals, objectives and policies of the general plans and regional plans previously described above and within Table 2-1 with the exception for the RTIP 2008, which is currently being in the amendment process to allow adding two traffic lanes in each direction as proposed under Alternative 3.

2.2.2 Coastal Zone

There would be no impacts to coastal zone since the project is not located within the designated coastal zone area.

2.2.3 Wild and Scenic Rivers

There are no wild or scenic rivers within the project study area, no impacts would occur.

2.2.4 Farmland

None of the proposed Build Alternatives would require the use or acquisition of agricultural resources within the City of Seal Beach or the City of Costa Mesa. In addition, there would be no effects on points of access and associated on-site roads, equipment and crop storage and staging areas, or planting and harvesting activities.

2.3 CONSTRUCTION IMPACTS

No Build Alternative

Under the No Build Alternative, no improvements would be undertaken along the I-405 corridor within the project limits; therefore, no temporary (i.e., construction) land use or planning impacts would occur and no mitigation measures would be necessary. In addition, there would be no impacts to the coastal zone; wild and scenic rivers; or farmland.

Build Alternative 1: Add One General Purpose Lane

Construction of the proposed project would create some temporary and intermittent inconvenience for some current land uses due to equipment operations and temporary traffic lane and ramp closures required to accommodate construction activities. Moreover, access to some businesses situated in the immediate vicinity of the project corridor could be reduced or restricted. Best management practices for traffic, noise abatement, air quality and water quality will be implemented during project construction to minimize these impacts.

There would be no impacts to the coastal zone; wild and scenic rivers; and farmland within the implementation of Build Alternative 1

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Facility

Impacts would be the same as Build Alternative 1.

2.4 CUMULATIVE IMPACTS**No Build Alternative**

Since there would be no project with the No Build Alternative, there would be no cumulative impacts on land use or planning; coastal zone; parks and recreation; and wild and scenic rivers.

Build Alternative 1: Add One General Purpose Lane

The resource study area for land use and planning covers the boundary of eight cities/communities located along the I-405 corridor. General plans serve as the long-range planning documents for communities located within the project study area. Planned transportation and other development projects must comply with land use designations and associated policies contained within these plans as part of project review and implementation. Given these requirements, planned projects listed on Table 1-1 would be consistent with applicable general plan and zoning requirements and as such, no cumulative land use impacts would result.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Facility

Impacts would be the same as Build Alternative 1.

2.5 INDIRECT IMPACTS**No Build Alternative**

No indirect or secondary impacts on land use and planning; coastal zone; and wild and scenic rivers would result from implementation of the No Build Alternative.

Build Alternative 1: Add One General Purpose Lane

As described earlier, no adverse impacts to current land use and zoning designations within the direct impact study area are anticipated to change in the project study area with implementation of any of the build alternatives; therefore, indirect or secondary impacts are not anticipated to occur. Implementation of Build Alternative 1 would require relocation of up to four existing businesses (see Section 4.2.2 for detailed information). Since these businesses do not specifically serve special need groups and they can be relocated to areas within reasonable vicinity, the cities and County having jurisdiction over the project study area would not experience deviations from growth projections or development opportunities.

This alternative intended to improve traffic flow, ease congestion, and improve the transit system along the I-405 freeway. It may also help to reduce the current level of cut-through traffic within adjacent communities due to reduced freeway speeds and congestion. Substantial increases in air pollutant emissions and noise level within the cities/communities located adjacent to I-405 study area are not anticipated. Therefore, no indirect impacts to the use of land from air pollutant and noise level would occur. In conclusion, this alternative would have a beneficial effect on surrounding communities and their adopted plans.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Facility

Impacts would be the same as Build Alternative 1.

2.6 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

No mitigation is required for the No Build or any of the Build Alternatives.

Chapter 3. Growth Inducement

Growth inducement is defined as the relationship between the proposed transportation project and growth within the project area. It is often defined as the measurable increase in population, housing, and/or employment that can be reasonably attributable to implementation of a given area. The classic example would be the construction of a new transportation facility, in a completely undeveloped area, linking that area to an existing concentration of jobs or housing. The growth inducement assessment examines the relationship of the proposed project to economic and population growth or to the construction of additional housing in the project area. It focuses on the potential for a project to facilitate or accelerate growth beyond planned developments, or induce growth to shift from elsewhere in the region. In the present analysis, the project's influence on area growth due to travel time savings is considered within the context of other relevant factors such as relative cost and availability of housing, availability of amenities, local and regional growth policies, and development constraints.

3.1 REGULATORY SETTING

The Council on Environmental Quality (CEQ) regulations, which implement the NEPA of 1969, require evaluation of the potential environmental consequences of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations, 40 *Code of Federal Regulations* (CFR) 1508.8, refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The CEQA also requires the analysis of a project's potential to induce growth. CEQA guidelines, Section 15126.2(d), require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment..."

3.2 ANALYTICAL TECHNIQUES

The growth inducement analysis utilized the "Forecast Methodology." Caltrans identifies this technique as the preferred methodology for assessing growth inducement since it is the most quantitative and least speculative procedure available (Caltrans, 1997). A brief explanation of this process is provided below.

The traffic forecasts for the I-405 Improvement Traffic Study were prepared with the use of the Orange County Transportation Analysis Model (OCTAM) version 3.3. OCTAM is a regional

model that is based on the traditional four-step sequential modeling methodology (each step of which is described below). The model incorporates multi-modal analytical capabilities to analyze the following modes of travel: autos, local and express bus transit, urban rail, commuter rail, toll roads, carpools, truck traffic, as well as non-motorized transportation which includes pedestrian and bicycle trips. The model responds to changes in land use types, household characteristics, transportation infrastructure, and travel costs such as transit fares, parking costs, tolls, and auto operating costs. OCTAM is a state-of-the-practice travel demand forecasting model designed to address transportation issues mandated by state and federal legislation and has been used extensively for freeway and toll road improvement projects throughout Orange County.

OCTAM uses socioeconomic data to estimate trip generation and mode choice, as well as several submodels to address complex travel behavior and multi-modal transportation issues. Socioeconomic data projections utilize a market based approach that links international, national, and state economic and demographic trends to regional growth at the county level. In Orange County, sub-county level data are developed by the Center for Demographic Research (CDR) at California State University, Fullerton, in coordination with cities' and county's general plans, as well as major land developers.

The CDR develops and maintains the Orange County Projections (OCP) of population, housing, and employment data at the lowest level geography, in a Geographic Information System (GIS), such that it can readily be aggregated to the OCTAM traffic analysis zones (TAZ). In addition to the three basic socioeconomic variables, the CDR develops several other modeling variables used in OCTAM. The socioeconomic data used in forecasting traffic on I-405 are from the OCP 2006 projections. The socioeconomic data used for OCTAM include the following developed at the level of the TAZ:

- Resident Population: Total persons excluding institutionalized persons in census-defined group quarters.
- Employed Residents: Total employed persons 16 years and over (including part-time workers, self-employed workers and unpaid family workers).
- Median Income: Median household income in 1989 dollars.
- Single-Family Dwelling Units (SDU): Occupied single-family detached housing units.
- Multiple-Family Dwelling Units (MDU): Occupied multi-family housing units.
- Total Dwelling Units: Total occupied housing units.
- Household Size: Average persons per total occupied housing unit.
- Auto Ownership: Total number of vehicles available per household.

- Total Employment: All employees including military personnel, civilian personnel and self-employed.
- Retail Employment: All employees in occupation categories listed under Standard Industrial Classification (SIC) Division G, major groups 52-59.
- Service Employment: All employees in occupation categories listed under SIC Divisions I, major groups 70-89.
- Other Employment: Total Employment excluding Retail and Service Employment.
- School Enrollment: Total number of students attending public and private elementary, junior high, and high schools.
- University Enrollment: Total number of students attending major public and private colleges and universities.
- Zonal Area: Total acreage of zone.

The traditional four steps of the forecasting process used in the OCTAM forecast modeling are: trip generation, trip distribution, modal choice, and trip assignment. The socioeconomic data are used to complete the first step by calculating the number of trips generated in each TAZ. The second step distributes the trips generated in each TAZ to every other zone in the model. The third step identifies the number of trips between each pair of zones for each mode of travel using some of the socioeconomic data and mode choice submodels. The fourth step assigns the vehicle travel to the roadway network and transit travel to the transit network. The roadway network used in the model includes the characteristics of existing roadways in the arterial and higher roadway classifications as well as any projects programmed for implementation or for which a Final Environmental Document has been approved.

OCTAM has separate models for the morning peak (6:00-9:00 AM), midday (9:00 AM – 3:00 PM), evening peak (3:00-7:00 PM), and nighttime (7:00 PM – 6:00 AM) periods. Following use of a four step model such as OCTAM, a set of “post-processing” procedures is applied to refine the model outputs. Four post-processing procedures were applied to the OCTAM outputs. In the first two of these post-processing procedures, the model output was converted from peak period to peak hour using standard factors developed for that conversion and adjusted to correct for limitations of the model identified by modeling the existing (or recent) condition and comparing the model outputs with known conditions for the period modeled.

In the third post-processing procedure the forecasts were adjusted from year 2035 to year 2040. The OCP 2006 provides socioeconomic data to year 2035 in five year increments. Consequently,

OCTAM has an horizon forecast year of 2035. The I-405 Improvement Project requires a forecast year for 2040, 20 years after the proposed project is estimated to be open to traffic. A growth factor was developed for the period from year 2035 to year 2040 based on the assumption that the rate of growth from year 2030 to year 2035 would continue from year 2035 to year 2040. The growth in population and employment in Orange County from year 2030 to year 2035 is approximately 1 percent annually. Year 2035 volumes were therefore increased by 1 percent annually to provide year 2040 forecasts.

In the fourth and final procedure the volumes were adjusted to maintain conservation of flow, which is the concept that traffic on a specified roadway segment is the sum of traffic on the adjacent segment adjusted for turns onto or off of the roadway where the adjacent segment meets the specified segment. Conservation of flow is especially critical in the analysis of traffic on I-405 because of the controlled access of the roadway at entrance and exit ramps.

For the I-405 Improvement Project a single demand forecast was prepared. Forecasts for each of the alternatives utilize the same total traffic volumes on a segment but redistribute volumes among the different lane types, as necessary. For example, under the Baseline (No Build) Alternative corridor traffic between Beach Boulevard and Bolsa Avenue is distributed across the existing HOV lane and four general purpose lanes in each direction. Under Alternative 2, the same corridor traffic between Beach Boulevard and Bolsa Avenue is distributed across the seven lanes in Alternative 2 – one HOV lane and six GP lanes in each direction. This distribution of traffic across the different lane types may or may not be an even distribution, depending upon the types of lanes involved and other factors. Under Alternative 3 the total traffic on any one freeway link is assigned to the two express lanes and five general purpose lanes in each direction; a volume, limited to assure high-speed uncongested operations, is first assigned to the express lanes with the remaining corridor traffic assigned to the general purpose lanes.

3.3 AFFECTED ENVIRONMENT

3.3.1 Population, Housing, and Land Use Trends

Data contained in the SCAG RTP Growth Forecast, adopted March 2008, provides information on current and forecasted (through year 2035) population and employment totals and growth trends for cities within the proposed project area, as well as Orange County (see Table 3-1). Additional analysis for the proposed project was conducted (using the average annual growth rate from 2030 to 2035) to project population in 2040. The unincorporated areas of Orange County and which are located outside of the proposed project are anticipated to grow over 100 percent by 2040, while the remaining are only anticipated to grow from 10 to 20 percent by 2040. The cities of Seal Beach and Westminster are anticipated to grow the least (10 percent).

Table 3-1
Population Growth Forecast Within Cities/Communities
Covering Project Study Area

County or City	Year					Percent Increase from Year 2005 to 2040
	2005	2015	2025	2035	2040	
Orange County	3,059,952	3,451,755	3,586,283	3,653,990	3,677,803	20
City of Costa Mesa	113,137	122,828	125,675	126,958	127,403	13
City of Fountain Valley	56,079	61,009	63,086	64,525	65,075	16
City of Garden Grove	171,001	185,265	190,409	192,532	194,639	14
City of Huntington Beach	200,349	217,822	222,569	225,815	226,833	14
City of Los Alamitos	11,917	12,831	13,124	13,312	13,502	13
Unincorporated Orange County (incl. Rossmore)	118,994	198,935	229,703	237,211	245,021	105
City of Seal Beach	25,190	27,115	27,570	27,871	27,696	10
City of Westminster	91,869	98,384	100,496	102,017	102,528	12

Source: Southern California Association of Governments (SCAG), 2008, and Parsons, 2011

The Regional Housing Needs Assessment (RHNA) is mandated by State Housing Law as part of the periodic process of updating local housing elements of the General Plan. The RHNA quantifies the need for housing within each jurisdiction during specified planning periods. The current planning period is January 1, 2006 to June 30, 2014. Communities use the RHNA in land use planning, prioritizing local resource allocation, and in deciding how to address identified existing and future housing needs resulting from population, employment and household growth. The RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that collectively the region and subregion can grow in ways that enhance quality of life, improve access to jobs, promote transportation mobility, and address social equity, fair share housing needs.

Table 3-2 shows the total number of residential units allocated for communities covering the study area for the years 2005 through 2040. Communities covering the study area are almost entirely built out or contain few large, undeveloped parcels. Development opportunities are limited and largely include infill or redevelopment projects. Review of current project development lists at various cities covering the study area revealed that the majority of projects currently under development or which have completed development applications under consideration include residential, commercial/office, mixed use (residential/ commercial/office), and light industrial. In fact, SCAG's adopted growth forecast analysis indicates that major land use trends (within the immediate vicinity of the study area) are expected to include: (1)

expansion and/or conversion of light industrial uses to more intense industrial uses; (2) increased residential densities; expanded highway commercial uses; and (3) increased activity centers (SCAG and Orange County Council of Governments, 2010).

Table 3-2
Regional Housing Need Allocation for Cities/Communities
Covering Project Study Area (January 1, 2006 through June 30, 2014)

Jurisdiction	Total RHNA Allocation (dwelling units)
City of Costa Mesa	1,682
City of Fountain Valley	466
City of Garden Grove	560
City of Huntington Beach	2,092
City of Los Alamitos	41
City of Westminster	147
City of Seal Beach	57
Unincorporated Orange County (includes all unincorporated areas of Orange County including the community of Stanton)	7,978

Source: SCAG, *Final RHNA Allocation adopted by SCAG Regional Council on July 12, 2007.*

3.3.2 Job and Housing Balance

In 2001, SCAG prepared a report entitled *The New Economy and Jobs/Housing Balance in Southern California* (April 2001) (“Report”). The report has not since been updated. The information and recommendations contained within the report were intended to “spur debates on how to better balance jobs with housing in the region.” In addition, it was also prepared to “assist sub-regions and individual jurisdictions in the SCAG’s region in their respective planning efforts to address the issue of jobs/housing balance.”

SCAG defines the balance between jobs and housing as “a provision of an adequate supply of housing to house workers employed in a defined area (i.e., a community or sub-region).” In addition, SCAG defines the jobs–housing balance as “an adequate provision of employment in a defined area that generates enough local workers to fill the housing supply.” Within Orange County the principal employment centers are located along major freeways within the northern and central portions of the County and include Interstates 5 and 405 and State Routes 91, 22, 57, and 55. The analysis contained within the report indicates that the Regional Statistical Areas (RSA) in which the study area is located (RSAs 19, 20, 21, 22, 35, 37, 38, 39, 42, and 44) are (1997 estimate) considered “very job rich or balanced” (SCAG, 2001).

According to SCAG, the 1997 regional average ratio of jobs to households is 1.25 jobs per household (a household is defined as an occupied housing unit). Therefore, jobs/housing balance

for this region can be defined as an area extending about 14 miles around an employment center with a ratio between jobs and household on the order of 1.0-1.29 jobs per household (Note: SCAG indicates that 14 mile radius is based upon the maximum commute distance most individuals are willing to travel to work. In addition, the 1.0-1.29 ratio represents the range of jobs/housing ratio for the middle 20 percent of the SCAG region.). This numbers represent the range of jobs/housing ratios for the middle 20 percent of the SCAG region. Job centers vary by size and are not evenly dispersed throughout the region; and congestion and average commute times also vary by location (and will change in the future). However the area or “commute shed” is defined, if it has a jobs/household ratio that significantly differs from the 1.0 to 1.29 standard, than it can be considered out of balance.

The jobs/housing ratios for the Cities and unincorporated communities covering the project study area are shown in Table 3-3.

Table 3-3
Jobs/Housing Ratio for Cities/Communities Covering Project Study Area

Jurisdiction	Jobs/Housing Ratio
City of Los Alamitos	3.06 (Greater employment to housing ratio)
City of Costa Mesa	2.15
City of Fountain Valley	1.15 (Balanced)
City of Garden Grove	1.07 (Balanced)
City of Huntington Beach	0.98
City of Hawaiian Gardens	0.96
City of Westminster	0.92
Unincorporated Orange County (includes all unincorporated areas of Orange County including the community of Stanton)	0.62
City of Seal Beach	0.60 (Greater housing to employment ratio)

Source: SCAG. The New Economy and Jobs/Housing Balance in Southern California, 2001

As shown in Table 3-3, the jobs to housing ratio for the cities covering the project study area vary from 3.06 within the City of Los Alamitos to 0.60 for the City of Seal Beach. The City of Los Alamitos exhibits a greater employment to housing ratio, while the City of Seal Beach reflects a greater housing to employment ratio. Based upon SCAG’s jobs to housing ratio criteria, the Cities of Fountain Valley and Garden Grove are considered balanced.

3.3.3 Past and Present Transportation Planning Efforts to Meet Growth Demand through Infrastructure

Caltrans has planned and undertaken many planning improvements along this segment of the I-405 freeway to address transportation demand resulting from planned construction of an HOV lane in each direction in 1991; however, I-405 is one of the most congested freeways in Orange

County, carrying more than 300,000 vehicle trips in some sections each day. In addition, traffic volumes on I-405 are expected to increase approximately 35 to 40 percent and the population is expected to grow 11 percent by 2040. To address these issues, a number of planning studies have been undertaken including a recent Major Investment Study (MIS) and Project Study Report (PSR)/Project Development Support (PDS) for the thirteen-mile portion of I-405 in Orange County between the I-605 and SR-73 freeways. These studies determined that major corridor mobility issues are related to the following: (1) demand exceeds current capacity resulting in significant travel delays during peak and some off-peak periods; (2) diversion of traffic is taking place onto arterials because the freeway is too congested during peak periods; (3) operational problems occur on the freeway, primarily because of physical bottlenecks; (4) there are a variety of interchange and ramp deficiencies; and (5) some existing geometric and operational deficiencies present potential safety concerns.

Both regional and local planning agencies including the SCAG and OCTA have included planned improvements within their respective Regional Transportation Plans to address growth and mobility issues associated with this and other portions of the I-405 freeway. Currently, two transportation improvement projects are committed within the study area including: (1) an additional HOV lane in each direction between SR-22 East and I-605, including HOV direct connectors at I-405/SR-22 East and I-405/I-605; and (2) auxiliary lanes in both directions of the I-405 between the Magnolia Street and Beach Boulevard interchanges linking upstream on-ramps with downstream off-ramps.

As noted previously, the proposed I-405 Improvement Project would meet new demand in a number of ways including (1) increase the capacity of the freeway to meet more of the existing and forecasted demand, increase peak period corridor speeds, and reduce peak period corridor travel times; (2) improve traffic operations on the freeway mainline; (3) enhance interchange operations; and (4) enhance safety which could reduce the number of accidents and associated traffic delays.

3.3.4 Existing and Proposed Facility Capacity, Level of Service, and Sizing Rationale

Previous project planning studies indicate there is insufficient capacity within the I-405 corridor (freeway and adjacent arterial streets) to accommodate existing and projected travel demands between SR-73 interchange and the Los Angeles County line (just north of the I-605 interchange). In addition, sections of the I-405 corridor currently operate at unacceptable levels of traffic congestion. Factors that also contribute to these conditions are the variable numbers of lanes that are provided along segments of the freeway. For instance, from SR-73 north to Euclid

Street the freeway has a single HOV lane and six GP lanes in each direction with numerous auxiliary lanes and braided ramps. North of Euclid Street there are five GP lanes and a single HOV lane in each direction. North of Brookhurst Street to SR-22 (near Valley View Street) there are four GP lanes and a single HOV lane in each direction. In the SR-22 overlap segment between Valley View Street and SR-22 there are six GP lanes and a single HOV lane in each direction. North of the SR-22 ramps to I-605 there are five GP lanes and a single HOV lane in each direction.

A Route Concept Report (RCR) prepared for I-405 in Orange County indicates that 10-12 GP lanes on I-405 from SR-73 to Beach Boulevard and a minimum of 10 lanes from Beach Boulevard to SR-22 east are needed to provide the best level of service and reduce the duration of congestion (Caltrans, 1999). However, due to ROW constraints, the maximum number of new lanes planned for the proposed project (Build Alternatives, excepting the No Build Alternative) would range from one to two GP or toll lanes with some segments containing new auxiliary lanes. As such, the total number of GP and HOV/High Occupancy Toll (HOT) lanes in each direction would vary by segment of I-405, but would generally range from 5 to 9 lanes (including general purpose, auxiliary, and HOT lanes). As noted above, this would not meet the recommended 10 to 12 lanes identified in the RCR.

It should be noted however, that the proposed project is part of an overall effort involving various planned and completed projects designed to improve safety and mobility along I-405 within Orange County. To this end, both OCTA and Caltrans have undertaken extensive planning coordination, and outreach efforts to ensure that the facility maximizes public benefits while ensuring that design and operational needs are largely maintained within the freeway ROW.

With the anticipated future growth in Orange County, delay is expected to increase on I-405. Under Existing Conditions, traveling the approximately 14 miles of the project corridor requires 15 to 37 minutes during the peak hours, depending upon the direction of travel and time of day. Under Future Without Project conditions, the peak hour travel time in the I-405 corridor is projected to increase to a range of 107 to 163 minutes. Under Existing conditions, average peak hour travel speed on the I-405 corridor ranges from 22 to 54 miles per hour (mph). Under Future Without Project conditions, average peak hour travel speed on the I-405 corridor is projected to decrease to a range of 5 to 8 mph.

With the forecast future growth of traffic volumes in the I-405 corridor, the level of service is expected to degrade further, even with implementation of the two committed projects previously mentioned.

Although the proposed project would provide additional freeway capacity, it would not meet the overall population projections set forth in either local or regional plans since the recommended 10 to 12 lanes identified in the RCR cannot be achieved due to ROW constraints. However, the proposed project has been identified as an important component of SCAG's RTP, OCTA's 2006 Long Range Transportation Plan, Master Plan of Arterial Highways, and Commuter Bikeway Strategic Plan.

3.4 PERMANENT IMPACTS

Direct growth inducement is generally regarded as providing urban services and extending infrastructure to undeveloped area. Growth inducement is also possible if capacity enhancements are provided well beyond expected or planned growth in demand.

No Build Alternative

Under the No Build Alternative, existing conditions would remain and no growth-related impacts would occur. However, the existing travel lanes would operate at the current level of efficiency and congested conditions would remain in the mixed-flow lanes. Continued congestion along this highway corridor and associated regional systems could hinder implementation of other redevelopment and transportation plans which rely upon access to and from highway corridors.

Build Alternative 1: Add One General Purpose Lane

As noted in Section 4.5, based on current real estate market data, there are ample replacement properties within a 5-mile radius from the location of businesses proposed for acquisition. In addition, the loss of employment as a result of business relocation would not adversely affect the local and regional economy over the long term.

This alternative does not change accessibility nor would it result in growth inducement because it does not remove an impediment to growth and is not a precedent setting action. The project does not remove an impediment to growth because the project would not provide an entirely new public facility. Rather, it includes capacity enhancements along an existing freeway corridor that are intended to respond to expected demand. The more effective use of freeway capacity is a response to congested conditions that have arisen from past development trends. Future growth, as approved in the context of adopted regional and local plans, requires such management approaches to attempt to maintain acceptable levels of service on the transportation system. The project is not a precedent setting action because land use plans for the area include plans for future growth and the project will facilitate the improved mobility for future conditions.

The potential for growth inducing effects would be the greatest on undeveloped and unplanned land because these areas generally have limited existing transportation infrastructure. The I-405

Improvement Project is a capacity enhancement project along a route that already experiences a constrained level of freeway and non-freeway access. Further, the majority of the study area is already developed. As noted previously, additional growth potential is limited and will primarily be in the form of in-fill development or redevelopment of existing uses that are already served by the local and regional transportation system. Construction of Build Alternative 1 would not provide new access to any area.

Given the constrained level of access already experienced in the study area, development or redevelopment of these parcels would completely be driven by market conditions, economics, and local land use approvals. The I-405 Improvement Project is not providing new access to the area, but lane capacity enhancements through the corridor to reduce existing and future delay, and would not accommodate additional traffic beyond what is currently projected with or without the project. Therefore, it is not expected that these capacity enhancements would have any meaningful effect on landowner decisions. The economic attractiveness and location of the study area are the dominating conditions influencing growth, overshadowing freeway improvements.

The location, timing, and level of future growth in the study area would also depend on the availability of certain types of infrastructure/services (i.e. water, sanitary sewers, schools, etc.). Plans for critical future infrastructure are addressed by the individual jurisdictions and agencies providing these services to existing and future development, and their availability would affect the location, level and timing of future development regardless of the I-405 Improvement Project. Because the proposed transportation improvements partially accommodate existing development, the proposed project would have no substantial potential for stimulating the location, rate, timing, or amount of growth either locally or regionally.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Facility

Impacts would be the same as Build Alternative 1.

3.5 CONSTRUCTION IMPACTS

No Build Alternative

No temporary impacts related to growth inducement would occur since the proposed project would not be constructed under this alternative.

Build Alternative 1: Add One General Purpose Lane

Growth inducement during project construction could generally occur as a result of construction crew temporarily living in or nearby the construction site. For the project in an urban setting like this proposed project, the workforce would likely been drawn from the local area; hence no adverse growth inducement would occur.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Facility

Impacts would be the same as Build Alternative 1.

3.6 CUMULATIVE IMPACTS**No Build Alternative**

No cumulative impacts related to growth inducement would occur since the proposed project would not be constructed under this alternative.

Build Alternative 1: Add One General Purpose Lane

The resource study area for growth would be regional in nature since the I-405 is the major link between Los Angeles County and Orange County. Given the mature nature of the local communities, inducement of substantial growth effects has been limited, but serves to maintain or enhance the existing economic vitality of each jurisdiction, particularly with the loss of industrial/manufacturing uses over the last decade. The projects listed in Table 1-1 individually and collectively do not create growth impacts. The proposed I-405 Improvement Project is not anticipated to induce any unplanned growth either regionally or in the local project area, and therefore, is not anticipated to contribute to any cumulative growth impacts. The I-405 freeway, parallel arterial highways, as well as arterial east-west streets, all experience severe daily congestion. The economic attractiveness of this corridor location remains strong despite these congestion problems. Any area growth is a product of these non-transportation related influences.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Facility

Impacts would be the same as Build Alternative 1.

3.7 INDIRECT IMPACTS

Indirect or secondary growth-inducing impacts consist of growth induced in the region by the additional demands for housing, employment, and goods and services associated with population increase caused by or attracted to new development.

No Build Alternative

Under the No Build Alternative, existing conditions would remain and no growth-related impacts would occur.

Build Alternative 1: Add One General Purpose Lane

Implementation of the proposed project has the potential to result in indirect effect to growth. Transportation projects may reduce the time-cost of travel, thereby enhancing the attractiveness for infill development to developers and consumers, and promoting growth. When the change in accessibility provided by a transportation project facilitates land use change and growth in population and employment, one outcome can be growth-related impacts to environmental resources. Research has shown that although accessibility improvements rarely change the rate of growth of a region (such as a county or metropolitan area), changes in accessibility can influence the direction of growth in a region and the rate of growth in local areas.

The proposed project aims to increase capacity along the I-405 corridor and maintain or improve existing and future traffic operations along this corridor. While the proposed project would not result in new access to a previously inaccessible area, it could increase accessibility in the project vicinity by improving circulation along this segment of I-405. This reduction in congestion and improved safety could influence travel behavior and trip patterns. However, the amount of land available for development within the eight jurisdictions in the study area is limited. The only opportunity is limited to infill redevelopment. Due to the urbanized nature of the study area and almost no availability of developable land, there are no known projects in the vicinity that are dependent on implementation of the proposed project. The likelihood of a highway project causing growth related impacts in an urban area is typically low because of its built-out land use pattern, policies controlling future growth, and costs associated with redevelopment.

The addition of express lanes or GP lanes is an example of projects that could cause growth related impacts. However, the built-out nature of the project area, minimal presence of resources of concern, and cost of redevelopment would limit the potential for the proposed project to influence growth. First cut screening analysis indicates that future growth associated with the project is not considered reasonable foreseeable. The reduction in congestion and improved safety associated with the proposed project would not substantially affect the location, rate, type, or amount of growth in the project vicinity, due to other limits on growth, including land use

controls within local and regional plans and policies and the highly urbanized nature of the surrounding land uses. The proposed project would have a moderate influence on growth, and there would be no growth related impacts attributable to the project. Therefore, no adverse effects associated with growth would be anticipated with implementation of any of the alternatives.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Facility

Impacts would be the same as Build Alternative 1.

3.8 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

No mitigation is required for the No Build and any of the Build Alternatives.

Chapter 4. Community Impacts

This chapter addresses direct, indirect, and cumulative impacts to the communities within the study area boundary as a result of the proposed project implementation, in terms of impacts to neighborhoods and community cohesion, ROW and relocation impacts, and environmental justice considerations.

4.1 AFFECTED ENVIRONMENT

4.1.1 Neighborhoods and Community Cohesion

Community cohesion is the degree to which residents have a “sense of belonging” to their neighborhood, a level of commitment to the community, or a strong attachment to neighbors, groups, and institutions, usually because of continued association over time.

Development within the project study area generally occurred in the post-World War II period with land uses that are formulaic master-planned communities with large boulevards and freeways intersecting homogenous single-family residential cul-de-sac communities. Large retail centers serve as significant local landmarks and as areas promoting community cohesion by providing free and ticketed entertainment along with a variety of shopping and services. While the land uses in the project area are similar, there is a diverse population composed of varied socio-economic neighborhoods within the cities/community covering the I-405 corridor within the project limits.

There are four broad neighborhood zones from south to north along the I-405 corridor within the project limits (See Figure 4-1), as described below:

- **South Coast Zone:** South Coast Plaza and the Orange County Performing Arts District are the major features of this zone, providing concerts, community events and shopping focused on affluent central Orange County communities in Irvine, Costa Mesa, Newport Beach, as well as less advantaged communities in southern Santa Ana and western Costa Mesa. There are year-round, free fashion shows at restaurants and retailers inside the mall, weekend art and entertainment, as well as benefit fundraisers for local non-profit organizations.

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Figure 4-1: Community Zones Within the Project Study Area

- **Beach Boulevard Zone:** Bella Terra (formerly Huntington Beach Mall) is the major feature in this zone and was recently redeveloped and now includes new shops, restaurants and theaters open late into the evenings providing local entertainment for residents in Westminster, Fountain Valley, and Huntington Beach. There is a free summer concert series during the evenings and a free summer Kids Club during the daytime.
- **Westminster Zone:** Westminster High School and the Westminster Mall are the major features in the zone. The High School is a major community gathering place with sport fields and other school-related activities. It is located north of I-405 between Goldenwest Street and Edwards Street. Westminster Mall is a regional center providing services to residents in Westminster, Huntington Beach, and Seal Beach. The mall is open to the public before stores open to allow seniors and other walking groups to walk in a safe, enclosed environment. The mall also has a yearly pumpkin patch, Christmas tree lot and other weekend entertainments during the summer.
- **Leisure World/Rossmoor Zone:** The major feature of this zone is the age restricted (55+ years) private retirement community of Leisure World in Seal Beach. Leisure World is located south of I-405 between the San Gabriel River, Westminster Avenue and Seal Beach Boulevard. The community is self contained and has its own recreational facilities, including a golf course, community meeting areas with an amphitheatre and organized clubs geared toward retirees. The unincorporated community of Rossmoor is located to the north of I-405 in this zone. The major community areas are Rush Park and the Rossmoor Shopping Center which are approximately one quarter mile from the project area.

4.1.2 Right-of-Way and Relocation

The dominant land uses within the project study area include low and medium density residential (single- and multiple-family), commercial (neighborhood and regional), institutional (government and schools), light industrial (general manufacturing) and agricultural (row crops). A wide variety of commercial establishments contributing to local economy are located along both sides of the project corridor, such as fast-food stores, restaurants, small scale retail stores, large shopping centers, motels, etc. For example, the South Coast Plaza is one of the major economic centers in the South Coast Zone (see Figure 4-1 for the location). Bella Terra (formerly Huntington Beach Mall) is the major feature in the Beach Boulevard Zone and was recently redeveloped and now includes new shops, restaurants and theaters open late into the evenings providing local entertainment for residents in Westminster, Fountain Valley, and Huntington Beach. Westminster Mall is a regional center providing services to residents in Westminster,

Huntington Beach, and Seal Beach. In addition to the various establishments, single family and multifamily residences are also situated along the project corridor.

4.1.3 Environmental Justice Consideration

In the transportation context, environmental justice refers to ensuring that communities participate in the planning and decision making for transportation investments, and that their concerns and needs are incorporated into plans and policies with the objective that the resulting system can better serve all of its users. Public agencies are also obligated to disclose any adverse impacts of transportation plans, programs, and projects that fall disproportionately on low-income and minority communities, to rigorously examine alternatives that could eliminate or reduce the severity of such effects, and to ensure that these communities receive an equitable distribution of the benefits of transportation investments.

Rules and regulations governing Environmental Justice considerations are briefly summarized below:

Executive Order 12898: In 1994, President Clinton issued Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. The Executive Order focused attention on Title VI of the Civil Rights Act of 1964, which is a policy of the United States that prevents discrimination on the grounds of race, color, or national origin in connection with programs and activities receiving federal financial assistance, by providing that “each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”

In support of EO 12898, the United States Department of Transportation (DOT) issued an Order on Environmental Justice (DOT Order 5610.2) in 1997. This was followed by the FHWA Order on Environmental Justice (FHWA Order 6640.23), which was issued in 1998. The DOT Order declares the Agency’s policy to promote the principles of environmental justice, as embodied in the Executive Order, through the incorporation of those principles in all DOT programs, policies, and activities. The Order further states that this policy should be realized by fully considering environmental justice principles throughout the planning and decision-making process using the principles of *National Environmental Policy Act*, *Title VI of the Civil Rights Act of 1964*, the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended*, the *Intermodal Surface Transportation Efficiency Act of 1991*, and other DOT statutes, regulations, and guidance that address infrastructure planning and decision making.

Enacted in 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) placed additional emphasis on environmental stewardship, as well as consideration of environmental issues as a part of metropolitan and statewide transportation planning, and the linking of planning and the environmental assessment process. Each of these aspects strengthens the linkages between planning and environmental protection and creates opportunities to examine the potential for environmental justice issues early on and throughout the project development process.

Title VI – Civil Rights Act: Title VI of the 1964 Civil Rights Act provides one of the principle legal underpinnings for environmental justice. It states that “No person...shall, on the grounds of race, color, or national origin, be excluded from participation in, or be denied benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.” Title VI prohibits recipients of federal funds from actions that reflect “intentional discrimination” or that exhibit “adverse disparate impact discrimination” on the basis of race, ethnicity, or national origin. EO 12898 effectively extended the provisions of Title VI to include minority and low-income populations and required agencies to proactively develop strategies to:

- Identify activities to promote enforcement of all health and environmental statutes in areas with minority and low-income populations;
- Improve public participation by minority and low-income populations;
- Improve data collection and research related to the health and environment of minority and low-income populations; and
- Identify differential consumption patterns of natural resources by minority and low-income populations.

The following subsections provide an overview of the socioeconomic and demographic data that are used to consider if the population within the study area boundary is subject to environmental justice consideration.

Socioeconomic and Demographic Data

Socioeconomic and demographic data for the study area were reviewed and analyzed based on Year 2000 U.S. Census data. The 38 census tracts under study are located within one quarter mile from the proposed project corridor (Figure 4-2). They cover the proposed project site, its immediate surrounding area, and the area in the vicinity that could be potentially affected by the proposed project to a distance of one-quarter mile from the edge of the I-405 right-of-way. The census tracts under study include: 638.05, 638.06, 639.02, 639.03, 639.07, 639.08, 741.06, 992.24, 992.25, 992.29, 992.30, 992.32, 992.33, 992.34, 992.41, 992.42, 992.50, 992.51, 994.10, 995.02,

995.09, 995.10, 996.01, 996.02, 996.03, 996.05, 997.01, 997.02, 997.03, 999.02, 999.03, 999.05, 999.06, 1100.04, 1100.05, 1100.07, 1100.08 and 1100.12. The socio-economic characteristics of populations within the study census tracts are summarized and compared with the nearby cities/communities, Orange County, and Los Angeles County, respectively. The data by census tract are presented in Appendix E.

Although Year 2000 U.S. Census data are more than ten years old, there is not a more recent data set that provides information for the chosen geographies and categories of analysis used in this study. Updated decennial census data is currently being collected and should be available within the next few years. That being said, the economy began aggressively declining in 2008 and this change in the socioeconomic should be recognized even though it is not represented quantitatively in this study.

Existing and Projected Population

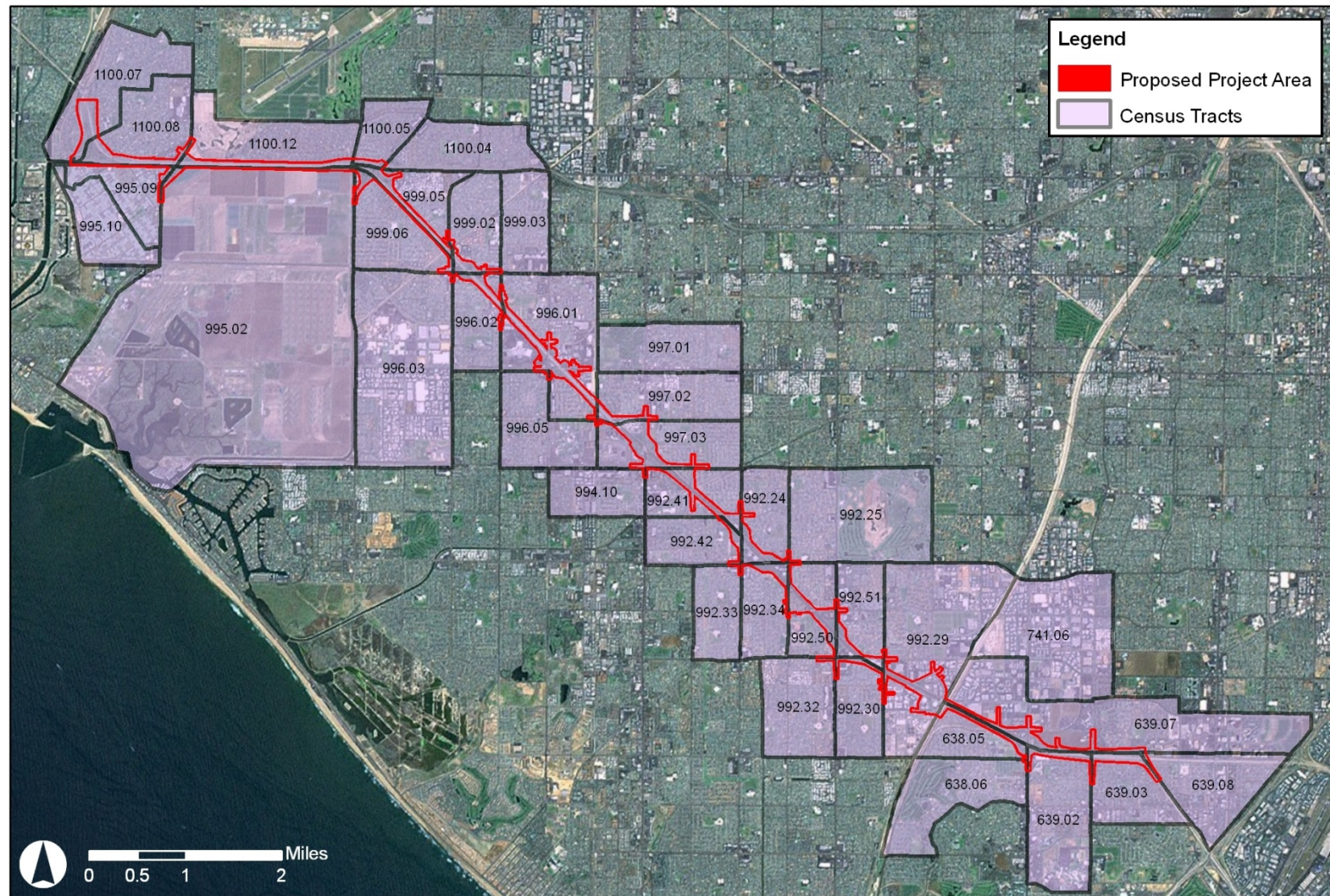
Population projection within the cities/communities covering the project study area is presented in Section 3.3.1 of this report. The unincorporated areas of Orange County are anticipated to grow about 100 percent by 2040, while the remainder of the areas is only anticipated to grow about 10 to 20 percent by 2040. Among the cities/communities within the study area, the cities of Seal Beach and Westminster are anticipated to grow the least.

Socioeconomic Characteristics

Socioeconomic and demographic data for the 38 study census tracts used for reference and analysis in this section are based on the year 2000 U.S. census. Also included in the analysis is a larger region of analysis, including the County of Orange, the community of Rossmore, and the Cities of Seal Beach, Westminster, Fountain Valley, Garden Grove, Huntington Beach, Los Alamitos and Costa Mesa. The socioeconomic data for the County of Los Angeles is also provided for reference.

Population Demographics

Year 2000 U.S. Census data from the 38 study census tracts and the larger region were used to characterize population demographic features within the proposed project area. The population of these census tracts was almost 170,000 residents (Table 4-1). The percentages of working age (20-64) population within the study census tracts is approximately 60 percent (about 101,000) of the total population, which is similar to the larger region analyzed, with the exception of the City of Seal Beach. The higher percentage of seniors (aged 65 and over) in Seal Beach is likely due to the large elderly community, Leisure World, located within the city limits.



Source: Parsons 2010

Figure 4-2: Census Tracts in the Vicinity of the I-405 Corridor

Table 4-2 presents the racial composition of the population in the study census tracts and the larger region. The study census tracts are representative of the corridor as a whole, with almost 60 percent of the population being white, followed by Asian (19 percent) and Hispanic or Latino (17 percent). The remainder of the race categories together account for approximately 5 percent of the total population. Based on this statistic, the study corridor is not considered a predominantly minority community compared to the larger region.

Socioeconomic Demographics

According to Year 2000 U.S. Census data, about 61,000 households are located within study census tracts (see Table 4-3). The average household size was 2.9 persons which is very similar to the larger region, including the counties in their entirety. The City of Seal Beach has the smallest average household size, likely due to the large elderly population. In contrast, the average household size in the City of Garden Grove is almost four persons, which, when compared to the average family size indicates larger families residing in the city. Average family size is slightly higher than average household in every portion of the study area.

As shown in Table 4-3, the median annual household income within the study census tracts was about \$61,100. This figure is average compared to some of the larger region under study. The area with the highest median annual household income is the community of Rossmoor (about \$86,000) and the lowest is the City of Seal Beach (about \$42,100). The median annual family incomes for the study census tracts follow the same pattern as the median household incomes.

Individual earnings in 1999 below the poverty level, which is defined as a minimum income level below which a person is officially considered to lack adequate subsistence and to be living in poverty, within the study census tracts are reported to be about 8 percent, which is lower than the larger region under study. The area with the highest percentage of individuals living below the poverty level is in the City of Garden Grove (14 percent), while in Rossmoor only 2 percent of the population is living below the poverty level. Orange and Los Angeles Counties have average poverty statistics, compared to the study corridor as a whole, with 10 and 18 percent, respectively.

The U.S. Department of Health and Human Services (HHS) establishes the poverty threshold on an annual basis. A family is considered “low-income” if its income is at or below the HHS poverty guidelines. The Year 1999 poverty threshold for an average family size of four was \$16,700. Based on the HHS thresholds for poverty, the study area is not at the poverty level.

Table 4-1
Study Area Population Demographics

Demographic	Study Area (Census Tracts)		Orange County		Los Angeles County		Rossmoor		Seal Beach		Westminster		Fountain Valley		Garden Grove		Huntington Beach		Los Alamitos		Costa Mesa	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Population	169,861	**	2,846,289	**	9,519,338	**	10,298	**	24,157	**	88,207	**	54,978	**	165,196	**	189,594	**	11,536	**	108,724	**
Population 19 or younger	43,491	25.6	846,604	29.7	2,946,796	31.0	2,961	28.8	3,504	14.5	25,147	28.5	14,238	25.9	51,549	31.2	46,378	24.5	3,203	27.8	28,231	26.0
Population 20 to 64	101,306	59.6	1,718,922	60.4	5,645,869	59.3	5,432	52.7	11,585	48.0	53,217	60.3	34,504	62.8	97,882	59.3	123,560	65.2	6,629	57.5	71,311	65.6
Population 65+	25,064	14.8	280,763	9.9	926,673	9.7	1,905	18.5	9,068	37.5	9,843	11.2	6,236	11.3	15,765	9.5	19,656	10.4	1,704	14.8	9,182	8.4

Source: U.S. Census, 2000.

Table 4-2
Racial Composition of Population in the Study Area

Demographic	Study Area (Census Tracts)		Orange County		Los Angeles County		Rossmoor		Seal Beach		Westminster		Fountain Valley		Garden Grove		Huntington Beach		Los Alamitos		Costa Mesa	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Population	169,861	**	2,846,289	**	9,519,338	**	10,298	**	24,157	**	88,207	**	54,978	**	165,196	**	189,594	**	11,536	**	108,724	**
White	101,225	59.6	1,458,978	51.3	2,959,614	31.1	8,662	84.1	20,372	84.3	31,962	36.2	32,144	58.5	53,735	32.5	136,237	71.9	7,836	67.9	61,778	56.8
Black or African American	2,075	1.2	42,639	1.5	901,472	9.5	77	0.7	329	1.4	764	0.9	584	1.1	1,873	1.1	1,383	0.7	358	3.1	1,313	1.2
American Indian and Alaska Native	549	0.3	8,414	0.3	25,609	0.3	29	0.3	54	0.2	293	0.3	171	0.3	523	0.3	777	0.4	31	0.3	329	0.3
Asian	32,173	18.9	383,810	13.5	1,124,569	11.8	583	5.7	1,363	5.6	33,511	38.0	14,100	25.6	50,803	30.8	17,544	9.3	1,090	9.4	7,421	6.8
Native Hawaiian and Other Pacific Islander	595	0.4	8,086	0.3	23,265	0.2	10	0.1	37	0.2	393	0.4	202	0.4	995	0.6	432	0.2	35	0.3	601	0.6
Some other race	299	0.2	4,525	0.2	19,935	0.2	22	0.2	21	0.1	101	0.1	129	0.2	210	0.1	314	0.2	18	0.2	220	0.2
Two or more races	4,766	2.8	64,258	2.3	222,661	2.3	228	2.2	427	1.8	2,045	2.3	1,778	3.2	3,449	2.1	5,109	2.7	320	2.8	2,539	2.3
Hispanic or Latino	28,179	16.6	875,579	30.8	4,242,213	44.6	687	6.7	1,554	6.4	19,138	21.7	5,870	10.7	53,608	32.5	27,798	14.7	1,848	16.0	34,523	31.8

Source: U.S. Census, 2000.

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Table 4-3
Study Area Socioeconomic Characteristics

Demographic	Study Area (Census Tracts)	Orange County	Los Angeles County	Rossmoor	Seal Beach	West-minster	Fountain Valley	Garden Grove	Huntington Beach	Los Alamitos	Costa Mesa
Total Population	168,579	2,803,533	9,349,771	10,249	23,988	87,195	54,608	163,888	188,750	10,894	106,134
Per Capita Income	\$25,373	\$25,826	\$20,683	\$38,642	\$34,589	\$18,218	\$26,521	\$16,209	\$31,964	\$26,014	\$23,342
Individual Earnings below Poverty Level	13,728	289,475	1,674,599	208	1,330	11,757	2,348	22,779	12,442	567	13,393
% Individual Earnings below Poverty Level	8.1	10.3	17.9	2.0	5.5	13.5	4.3	13.9	6.6	5.2	12.6
Total Families	42,095	673,912	2,154,311	3,019	5,977	20,444	14,310	36,907	48,235	3,005	23,108
Average Family Size	3.3	3.48	3.61	3.12	2.65	3.71	3.35	3.9	3.08	3.06	3.34
Median Family Income	\$65,625	\$64,611	\$46,452	\$93,500	\$72,071	\$52,677	\$74,502	\$49,697	\$74,378	\$60,767	\$55,456
Families below Poverty Level	2,346	46,894	311,226	39	194	2,192	423	3,858	2,081	124	1,892
% Families below Poverty Level	5.6	7.0	14.4	1.3	3.2	10.7	3.0	10.5	4.3	4.1	8.2
Total Households	61,482	935,287	3,133,774	3,715	13,048	26,406	18,162	45,791	73,657	4,246	39,206
Average Household Size	2.9	3	2.98	2.77	1.83	3.32	3	3.56	2.56	2.62	2.69
Median Household Income	\$61,078	\$58,820	\$42,189	\$86,457	\$42,079	\$49,450	\$69,734	\$47,754	\$64,824	\$55,286	\$50,732

Source: U.S. Census, 2000.

Unemployment Rate

Based on Year 2000 U.S. Census data, four percent of the study area census tract population within the labor force was unemployed at the time of the survey, which is lower than most of the larger region analyzed (Table 4-4). The highest percentage of unemployed individuals, according to 2000 U.S. Census data reside in Garden Grove (7 percent) compared to 5 percent in Orange County and 8 percent in Los Angeles County. The lowest percentage of unemployed individuals lives in Rossmoor (3 percent).

As discussed in the beginning of this section, Year 2000 U.S. Census data is more than 10 years old; however, there is not a more recent data set that provides data for the chosen geographies and categories of analysis used in this study. Due to the economic decline that began in 2008, high unemployment rates have continued into 2010. High unemployment is not unique to the study corridor, but it is important to acknowledge the discrepancy between 2000 data and the present condition throughout the country.

Housing Demographics

Based on Year 2000 U.S. Census housing characteristics data, over 61,000 houses were contained within the study census tracts (see Table 4-5). Most of the housing within the study census tracts was owner occupied (67 percent), which is approximately equivalent to the larger region analyzed. The area with the highest percentage of owner-occupied housing units belonged to Rossmoor (89 percent), while the area with the lowest percentage of owner-occupied units was in the City of Costa Mesa (41 percent). The high percentage of owner-occupied units along the proposed project corridor is likely due to the higher incomes received by the residents of the area.

Labor Force

An indication of the decline in the economy and associated rise in unemployment rates is reported by the California Employment Development Department (September 2010). Unemployment rates for the population in the labor workforce for all areas located within the study area are significantly higher than Year 2000 U.S. Census data. There was an average unemployment rate increase in the cities and counties analyzed in this study of 4 to 5 percent between 2000 and 2010 (Table 4-6). These data are unavailable at the census tract level.

Table 4-4
Study Area Employment Data, Location of Work, and Means of Transportation to Work

Demographic	Study Area (Census Tracts)		Orange County		Los Angeles County		Rossmoor		Seal Beach		Westminster		Fountain Valley		Garden Grove		Huntington Beach		Los Alamitos		Costa Mesa	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Population in the Labor Force	84,590	**	1,411,901	**	4,312,264	**	4,883	**	10,112	**	40,364	**	28,818	**	74,484	**	107,133	**	5,888	**	59,493	**
Employed	80,759	95.5	1,338,838	94.8	3,953,415	91.7	4,747	97.2	9,578	94.7	38,093	94.4	27,621	95.8	69,356	93.1	102,866	96.0	5,721	97.2	56,681	95.3
Unemployed	3,537	4.2	71,059	5.0	354,347	8.2	136	2.8	344	3.4	2,208	5.5	1,181	4.1	5,068	6.8	4,133	3.9	149	2.5	2,775	4.7
Means of Transportation to Work:																						
Car, Truck, or Van	73,340	92.4	1,180,117	89.8	3,296,964	85.4	4,334	93.3	8,844	92.2	34,555	93.0	25,282	93.2	62,101	91.7	92,855	91.7	5,113	92.2	47,952	86.2
Public Transportation	1,197	1.5	36,937	2.8	254,091	6.6	37	0.8	84	0.9	751	2.0	220	0.8	2,374	3.5	1,140	1.1	52	0.9	2,635	4.7
Walking, Bike, Motorcycle, Other Means	1,847	2.3	45456	3.5	166294	4.3	58	1.2	308	3.2	856	2.3	511	1.9	1,786	2.6	2,738	2.7	244	4.4	2,814	5.1
Worked at home	2,770	3.5	48,832	3.7	134,643	3.5	208	4.5	340	3.5	894	2.4	1,066	3.9	1,292	1.9	4,324	4.3	114	2.1	2,078	3.7

Source: U.S. Census, 2000.

Table 4-5
Study Area Tenure

Housing Demographic	Study Area (Census Tracts)		Orange County		Los Angeles County		Rossmoor		Seal Beach		Westminster		Fountain Valley		Garden Grove		Huntington Beach		Los Alamitos		Costa Mesa	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	61,482	**	935,287	**	3,133,774	**	3,715	**	13,048	**	26,406	**	18,162	**	45,791	**	73,657	**	4,246	**	39,206	**
Owner occupied	41,353	67.3	574,456	61.4	1,499,744	47.9	3,319	89.3	9,975	76.4	15,884	60.2	13,569	74.7	27,286	59.6	44,658	60.6	1,921	45.2	15,880	40.5
Renter occupied	20,129	32.7	360,831	38.6	1,634,030	52.1	396	10.7	3,073	23.6	10,522	39.8	4,593	25.3	18,505	40.4	28,999	39.4	2,325	54.8	23,326	59.5

Source: U.S. Census, 2000.

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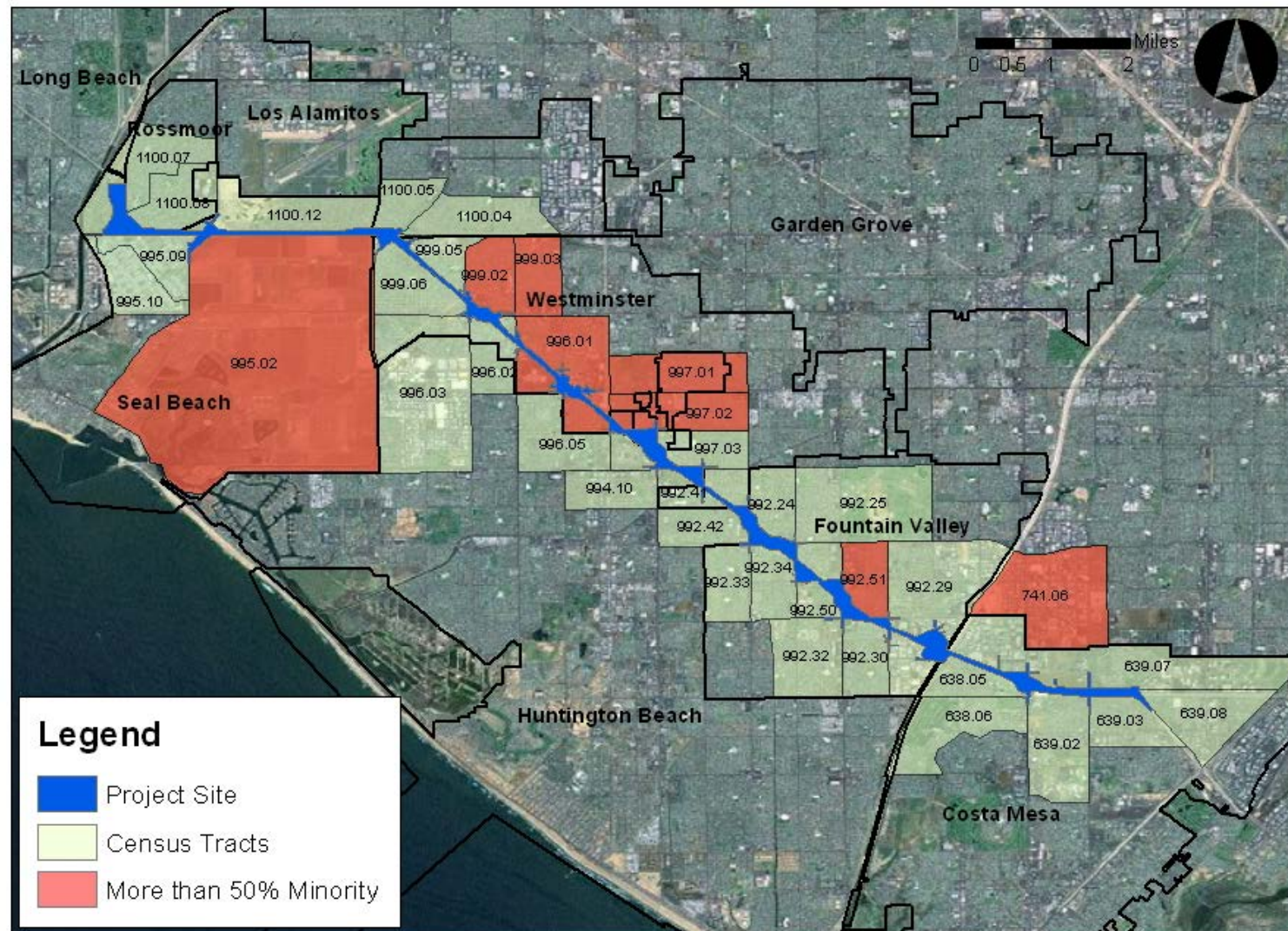
Table 4-6
Labor Force Data in Orange County as of September 2010

Area Name	Labor Force	Employment	Unemployment	
			Number	Rate (%)
Orange County	1,608,000	1,454,000	154,000	9.6
City of Costa Mesa	66,600	60,800	5,700	8.6
City of Fountain Valley	32,800	30,200	2,600	8.0
City of Garden Grove	85,800	75,600	10,200	11.9
City of Huntington Beach	121,900	112,300	9,600	7.8
City of Los Alamitos	6,600	6,200	400	5.3
Unincorporated Orange County (Rossmore)	5,500	5,200	300	5.9
City of Seal Beach	11,300	10,500	800	7.1
City of Westminster	46,400	41,500	4,900	10.6

Source: California Employment Development Department, 2010.

Based on the above socioeconomic data, the study area census tract data do not characterize the resident population as a predominantly minority population. On the contrary, the population along this corridor contains large proportions of white populations (see Table 4-2). As shown in Figure 4-3, there are several census tracts along the corridor that contain larger proportions of minority populations, but as a whole, the study corridor does not contain a minority environmental justice population, as contemplated by EO 12898.

The median income of most families in the study census tracts is higher than the County of Orange (see Table 4-3). At the same time, poverty levels are fairly low in the corridor study area. The majority of the census tracts contain poverty levels with less than 10 percent of the population living below poverty indicators. There are several anomalous containing poverty populations higher than 10 percent; however, compared to the County of Orange, the corridor does not consist of a primarily low income population. According to EO 12898, the study corridor does not contain a minority population based on income levels.



Source: Census, 2000

Figure 4-3: Census Tract Within the Project Study Area that Contains Minority Populations of More Than 50 percent

4.2 PERMANENT IMPACTS

4.2.1 Neighborhoods and Community Cohesion

No Build Alternative

I-405 is one of the most heavily used freeways linking between Los Angeles County and Orange County. There are a number of communities and neighborhoods adjacent to I-405 within the project corridor. With the No Build Alternative, the I-405 corridor within the project limits would continue to carry traffic volume that exceeds the capacity of the existing GP and HOV lanes. In addition, the geometric, storage, and operational capacity deficiencies along the corridor would not be corrected. The effect from ongoing congestion along I-405 could result in substantial impacts to community cohesion related activities because the continuing congested situation of the corridor network would discourage area residents to commute and participate in the community functions. Area residents would tend to look for less congested alternative routes within the adjacent neighborhoods as freeway conditions deteriorate.

Build Alternative 1: Add One General Purpose Lane

Under this alternative, improvements to I-405 would be undertaken to reduce congestion during the peak hours. Both community members living within the vicinity of I-405 corridor and people commuting between Los Angeles County and Orange County would benefit from the reduced congestion and the improved freeway operations. The improvements under this alternative have been designed to minimize ROW acquisition and would occur mostly within the existing Caltrans' ROW. No facilities supporting community functions such as schools, churches, or community centers would be affected by the proposed improvements. Although many slivers of land would be required to accommodate the proposed roadway improvements, only four establishments within the City of Fountain Valley would be subject to full acquisition, including Sports Authority, Days Inn Hotel, Fountain Valley Skating Center, and Boomers! (an amusement center), located off I-405 and Warner Avenue (see Section 4.2.2 for detailed information). Current real estate market data indicate that there are similar types businesses within a 5-mile radius of the project site, and it is reasonable to expect that such businesses would be able to relocate without undue difficulty (see Appendix B – Draft Relocation Impact Memorandum). Relocation of these businesses would not cause substantial impacts to neighborhood and community cohesion related activities. It should be noted from Figure 4-3 that one of the census tracts (992.51) within the vicinity of the four establishments subject to relocation contains more than 50 percent of minority populations (refer to Table 4-2 in Appendix E) and approximately 7.5 percent of family with income below poverty level (refer to Table 4-3 in Appendix E). Since these establishments are not specifically served by low-income or minority population, impacts to the populations in this census tract due to the

relocation of these businesses would not be substantial (see detailed explanation about the clientele of these establishment in Section 4.2.2 that follows).

In addition, implementation of the proposed project is anticipated to result in a beneficial impact to neighborhoods and community cohesion by reducing cut-through traffic within the adjacent neighborhoods. At present, motorist traveling along the I-405 often exit the facility and seek less congested alternative routes within the adjacent neighborhoods when freeway conditions deteriorate.

Build Alternative 2: Add Two General Purpose Lanes

Impacts are similar to that described under Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts are similar to that described under Build Alternative 1.

4.2.2 Right-of-Way and Relocation Impacts

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), mandates that certain relocation services and payments be made available to eligible residents, businesses, and non-profit organizations displaced by construction of state- or federally-sponsored public transportation projects. The Act establishes uniform and equitable procedures for property acquisition, and provides for uniform and equitable treatment of persons displaced from their homes, businesses, or farms by federally assisted programs.

Owners of private property have federal and state constitutional guarantees that their property will not be taken or damaged for public use unless they first receive just compensation. Just compensation is measured by the “fair market value” of the property to be taken. Where acquisition and relocation are proposed, OCTA and Caltrans would follow provisions of the Uniform Act, as amended, and in conformance with all applicable regulations. All real property to be acquired would be appraised to determine its fair market value. An offer of just compensation, not less than the approved appraisal, would be made to each property owner.

Each homeowner, renter or business displaced as a result of the project would be given advance written notice and would be informed of eligibility requirements for relocation assistance and payments.

No Build Alternative

No relocation of residences or businesses would be required under this Alternative.

Build Alternative 1: Add One General Purpose Lane

Residential Displacements

No relocation of residences would be required with implementation of the Build Alternative 1. A sliver take to some private property may be required but would not cause relocation. Any affected property listed in Appendix A of this report would be subject to compensation to the extent provided by law in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended.

Nonresidential Displacements

Based on preliminary engineering analysis, a total of 155 public or privately owned parcels would be affected from the required ROW acquisition to accommodate the freeway widening and associated roadway improvements. However, only a sliver would be required from nearly all of these parcels, with the area ranging from less than 1 square foot to 30,000 square feet (approximately 0.7 acres). A list of potentially affected parcels is presented in Appendix A of this report, and is summarized in Table 4-7. Impacts to several of these parcels could potentially be avoided with design modifications during the final design phase. Regardless of the extent of ROW impact, the property owners would be entitled to compensation to the extent provided by law in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended.

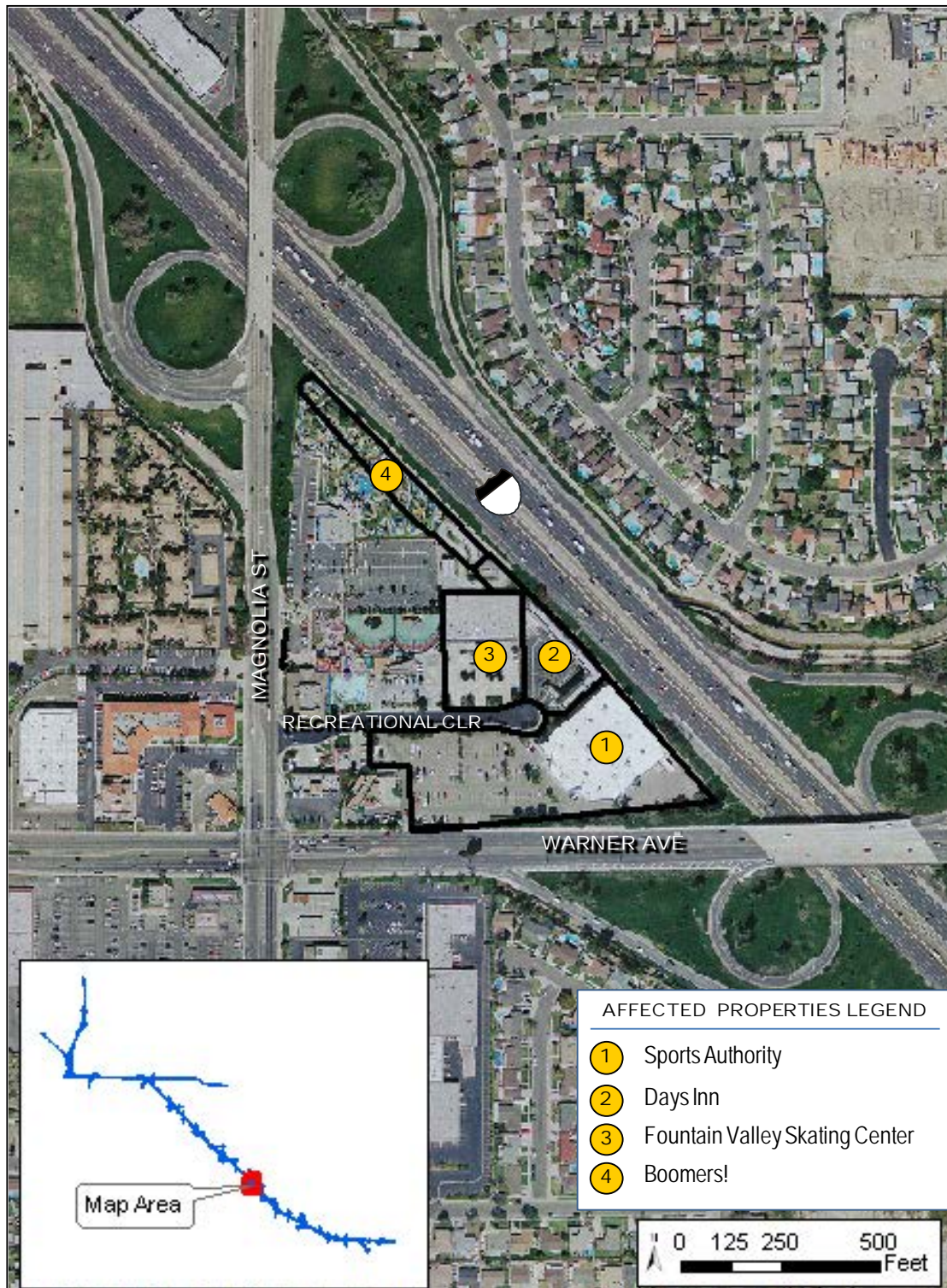
Table 4-7
Summary of Potentially Affected Properties

Alternative Number	Alternative Description	Number of Parcels Potentially Affected	Number of Residences Potentially Affected	Number of Businesses Potentially Affected
1	Add one GP Lane in each direction	155	0	4
2	Add two GP Lanes in each direction	173	0	4
3	Express Facility	189	0	4

Note: Number of potentially affected parcels listed includes vacant land, river, and publicly owned parcels.

Source: Parsons, 2010

Also based on preliminary engineering data, four businesses within the City of Fountain Valley at the intersection of I-405 and Warner Avenue would be subject to permanent acquisition, including Sports Authority, Days Inn Hotel, two out of four facilities of Boomers!, and the Fountain Valley Skating Center (Figure 4-4). Sports Authority (9065 Warner Avenue) is a chain retail store that carries a wide variety of sporting goods and products. The customers for this business are those who need sporting items, who live within Fountain Valley and the neighboring cities. Since this chain store is not categorized as a discount store, its clientele is likely to be general public, not a specific group of people such as low income or elderly.



Source: Parsons 2010

**Figure 4-4: Properties Subject to Full Acquisition
Under All Build Alternatives**

Days Inn Hotel (9125 Recreation Circle) is a 70 room motel chain serving guests in the City of Fountain Valley and nearby. Days Inn is a moderately priced motel that serves guests who look for a place to stay for a short period of time at a reasonable pricing. The clientele for this business is likely to be the travelers from other cities who visit the area for business or pleasure. The motel in general does not specifically serve a specific group of people such as low income or minority.

Boomers! Parks (16800 Magnolia Street) is a private recreational facility with indoor and outdoor activities, including video arcades, entertainment, miniature golf, bumper cars, and batting cages, among other activities. Fountain Valley Skating Center (9105 Recreation Circle) is an indoor roller skating rink and inline skating rink. This entertainment center is operated on a fee collection basis. Most of the activities tend to attract youth and young adults, who could afford to pay for the services. Therefore, this complex does not specifically serve a specific group of people such as low income or minority.

Sports Authority is located on land zoned for Local Commercial (C1) while the remaining three establishments are located on the land zoned for General Commercial (C2).

According to YellowPages.com, there are over 100 similar businesses to Sports Authority within a 5-mile radius from the City of Fountain Valley and nearby vicinity and about 95 similar businesses to Days Inn within a 5-mile radius. YellowPages.com lists one similar business to the Fountain Valley Skating Center within a 5-mile radius and 3 others within a 9-mile radius. The nearest Boomers! is located in Irvine about 7.2 miles from the City of Fountain Valley. (see Appendix B – Draft Relocation Impact Memorandum). However, individual entertainment activities such as video arcades, bumper cars, and batting cages can generally be found in any amusement or sporting facility.

Based on the nature of business of Sports Authority (retail sporting products) and Days Inn (chain motel), replacement of these businesses would not be difficult. Current real estate market data indicate that there are adequate resources in the City of Fountain Valley and nearby vicinity to accommodate relocation of the retail sporting products and motel businesses as can be seen in the real estate data (Attachment B of Appendix B).

Two facilities of Boomers! would be subject to relocation, including miniature golf course and bumper cars. Current real estate market data indicate that there are adequate resources in the City of Fountain Valley and nearby vicinity to accommodate relocation of this type of facilities. Relocation of Fountain Valley Skate Center would require discussion with business owners to identify suitable replacement site and address specific relocation issues. The interview to identify specific needs would be conducted during the final design stage of the project. Current real estate

market data indicate that there are 4 available vacant parcels for sale listings with a commercial zoning designation ranging from 3 to 4 acres in size that can be used to relocate Boomers, and about 3 comparable sites that can be used to relocate the Fountain Valley Skate Center. Any zoning change, if required, could be addressed through administrative remedies undertaken by the City of Fountain Valley City Council and Planning Department.

In addition to the four establishments mentioned above, Build Alternative 1 would potentially affect the access way to the current vacant building (abandoned LA Fitness) located north of I-405 and west of Goldenwest Street (14731 Goldenwest Street in the City of Westminster), as shown in Figure 4-5. Based on loopnet.com (accessed June 27, 2011), this building has been left vacant on or before 2004 (according to loopnet.com). Since this building is vacant, no relocation would be required.



Figure 4-5: Former LA Fitness Building in the City of Westminster

On-site appraisals to determine actual market value would be conducted for each property to be relocated or affected based on current market conditions prior to acquisition. Any person (individual, family, corporation, partnership, or association) who moves from real property or moves personal property from real property as a result of the acquisition of the real property, or required to relocate as a result of a written notice from the California Department of Transportation from the real property required for a transportation project is eligible for

“Relocation Assistance,” including “Last Resort Housing” benefits, should that be necessary. All activities would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and the California Department of Transportation Right-of-Way Manual.

Build Alternative 2: Add Two General Purpose Lanes

Residential Displacements

No relocation of residences would be required with implementation of Build Alternative 2.

Nonresidential Displacements

Based on preliminary engineering analysis, a total of 173 public or privately owned parcels would be affected from the required ROW acquisition to accommodate the freeway widening and associated roadway improvements. However, only a sliver would be required from most of these parcels, with the area ranging from less than 1 square foot to 30,000 square feet (approximately 0.7 acres). A list of potentially affected parcels is presented in Appendix A of this report, and is summarized in Table 4-6. Impacts to several of these parcels could potentially be avoided with design modification during the final design phase.

Similar to Build Alternative 1, the same four establishments within the City of Fountain Valley at the intersection of I-405 and Warner Avenue would be subject to relocation (Figure 4-4).

Build Alternative 3: Express Lane Facility

Residential Displacements

No relocation of residences would be required with implementation of Build Alternative 3.

Nonresidential Displacements

Based on preliminary engineering analysis, a total of 189 public or privately owned parcels would be affected from the required ROW acquisition to accommodate the freeway widening and associated roadway improvements. However, only a sliver would be required from most of these parcels, with the area ranging from less than 1 square foot to 30,000 square feet (approximately 0.7 acres). A list of potentially affected parcels is presented in Appendix A of this report, and is summarized in Table 4-6. Impacts to several of these parcels could potentially be avoided with design modification during the final design phase.

Similar to Build Alternatives 1 and 2, the same four establishments within the City of Fountain Valley at the intersection of I-405 and Warner Avenue would be subject to relocation (Figure 4-4).

4.2.3 Title VI and Environmental Justice Impacts

Executive Order 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address “disproportionately high and adverse” effects of federal proposed projects on the health or environment of minority and low-income populations.

As described in Section 4.1.3, the populations within the study census tracts as a whole are not characterized as predominantly minority or low income; therefore, environmental justice impacts are not addressed in this analysis. However, it should be noted that for all alternatives evaluated, the properties subject to relocation, as described in Section 4.2.2 (Right-of-Way and Relocation Impacts), are not unique in nature or that primarily serve low income, minority, or specific age groups or populations that depend on these services, but are however, can be found throughout these communities. In addition, under Alternative 3, public busses could utilize the toll lanes to provide more expedition routes during congested peak period. This would enhance the trip reliability and time savings for the public transportation user, including environmental justice populations and other disadvantaged groups.

In addition public outreach activities have been undertaken throughout the project development process to ensure that the affected communities receive up-to-date information about the project status. The summary of public outreach activities is presented in Appendix E.

4.3 CONSTRUCTION IMPACTS

The proposed project would have a prolonged period of construction for all of the build alternatives. Area residents would endure greater impacts resulting from construction activities as compared to the surrounding population. Once construction is complete, traffic circulation would soon return to normal.

No Build Alternative

Under the No Build Alternative none of the improvements under consideration would be constructed and as such, no impacts associated with project construction would occur.

Build Alternative 1: Add One General Purpose Lane

There would be no substantial barriers to access affecting the communities within the project area during the construction period. Community members would still be able to utilize community services and facilities during the construction period, although there would be some degree of inconvenience due to obstruction created at construction sites and associated traffic congestion. With a continuing public outreach program to keep the area residents and businesses

informed of the project construction schedule, there would be minor adverse impacts pertaining to community connection and cohesion within the project area.

Temporary construction easements (TCEs) would be required at various roadway segments under construction. However, access into and out of residential homes and local businesses would be maintained during construction.

Construction impacts, including noise and fugitive dust from construction activities and short-term roadway closures requiring alternative traffic routing, would have greater effects on residents and businesses in the immediate vicinity of construction area. Once construction is complete, traffic circulation would soon return to normal.

Construction impacts would be mitigated by adhering to Caltrans's standard specifications for noise control and dust abatement and/or construction Best Management Practices (BMP). A Ramp Closure Study (RCS) has been prepared to address impacts due to long-term ramp closures and identify detour routes and other measures to minimize impacts to area residents and businesses (Appendix C). Under Build Alternative 1, the following interchange ramps are expected to require 10 to 30 days of complete closure:

- Talbert Avenue SB on-ramp
- Warner Avenue SB on-ramp
- Magnolia Street SB off-ramp
- Bolsa Avenue SB on-ramp
- Westminster Boulevard SB on-ramp
- Bolsa Chica Road SB off-ramp

The proposed detour routes for these ramps, which are provided in the RCS (Appendix C) range from approximately 0.75 miles up to 2.5 miles in length and are anticipated to result in increased travel times ranging between approximately 1 minute up to 6.5 minutes. Note that based on the RCS, there would be no direct impact as a result of ramp closure to the Leisure World/Rossmore Zones, the area where age restricted private retirement community is situated.

The draft TMP for the proposed project has also been prepared (Appendix D) to address traffic management issues and identify measures to minimize impacts during project construction. With these mitigation measures in place, impacts to the communities would be minimized to the extent practicable.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as that described under Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as that described under Build Alternatives 1 and 2, except that the following additional interchange ramps would also require 10 to 30 days of complete closure:

- South Coast Drive Northbound (NB) off-ramp
- Fairview Road NB off-ramp
- Fairview Road NB on-ramp
- Fairview Road Southbound (SB) off-ramp
- Harbor Boulevard NB loop on-ramp
- Harbor Boulevard SB on-ramp

The proposed detour routes for these ramps, which are provided in the RCS (Appendix C) range from approximately 0.75 miles up to 1.75 miles in length and are anticipated to result in increased travel times ranging between approximately 1.5 minutes up to 5.5 minutes.

4.4 CUMULATIVE IMPACTS**No Build Alternative**

Under the No Build Alternative no project-related improvements would be implemented. Existing traffic conditions are expected to remain and future traffic conditions are expected to deteriorate over time. No population and housing impacts would occur under the No Build Alternative. Similarly, no impacts to environmental justice populations would occur with the No Build Alternative.

Build Alternative 1: Add One General Purpose Lane

Construction of the proposed project would result in temporary access control and business disruption from construction materials delivery and other activities; traffic congestion within and nearby the construction zone and along the construction material hauling routes; air pollutant emissions from construction activities; and temporary noise-level elevations from construction equipment operations. The level of these impacts would escalate if the construction period overlaps with other construction projects in the vicinity. Based on the known projects listed on Table 1-1, many transportation projects are under construction and would be completed prior to the construction commencement of the I-405 Improvement projects in 2015. No substantial impacts pertaining to community disruption on a cumulative basis are anticipated.

Implementation of Build Alternative 1 would result in full property acquisition of three businesses (Sport Authority, Days Inn, and Fountain Valley Skating Center) and partial acquisition of one business (Boomers!) to accommodate the construction. These businesses are not considered unique and do not serve specific groups of population such as minority or elderly nor do they serve specific communities within the project area. No similar businesses within the same locality (City of Fountain Valley) are known that would be subject to relocation from the implementation of other related projects listed on Table 1-1. Impacts to local communities along the I-405 Improvement Project corridor as a result of business relocation would not be cumulatively substantial when combined with other future foreseeable projects.

The proposed project is intended to add capacity and reduce congestion on the GP and HOV lanes along the entire I-405 corridor from SR-73 to I-605; to enhance interchange operations; and to increase mobility, improve trip reliability, maximize throughput, and optimize operations of the I-405 freeway network. Once the project is completed, area residents and businesses along the I-405 corridor, including new development projects would receive beneficial impacts from less congested freeway network and improved mobility at various interchanges across the I-405 Improvement project corridor. The impact from the proposed project implementation would be beneficial on a cumulative basis.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as that described under Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as that described under Build Alternative 1.

4.5 INDIRECT IMPACTS

No Build Alternative

Since there would be no construction activity and no relocation of any residences or businesses, no indirect or secondary impacts on community or business disruption are anticipated.

Build Alternative 1: Add One General Purpose Lane

Construction of any of the build alternatives would require relocation of four businesses within the City of Fountain Valley. Current real estate market data indicate that there are similar businesses within a 5-mile radius from the City of Fountain Valley and nearby vicinity.

Based on current real estate market data, ample locations within a 5-mile radius from the affected properties are available for relocation of these affected businesses. In the event the business owners may decide not to continue their businesses within the City of Fountain Valley or nearby

area, up to 50-90 people currently employed by these businesses could become temporarily unemployed. The unemployment rate of the City of Fountain Valley based on U.S. Census 2000 was at 4.1 percent. As of September 2010, the unemployment rate of the City of Fountain Valley is reported at 8.0 percent (see Table 4-6). The rise in the unemployment rate is due mainly to the current economic recession that has been on-going in the U.S. for several years. However, this unemployment rate is considered to be relatively low as compared to the County of Orange of 9.6 percent and County of Los Angeles of 12.5 percent. The loss of employment as a result of business relocation would not adversely affect the local and regional economy over the long term.

Based on the results of the RCS, there would be no indirect impact identified that would affect the residents of the Leisure World, where majority of senior citizens are resided.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Facility

Impacts would be the same as Build Alternative 1.

4.6 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

No Build Alternative

No avoidance, minimization, and mitigation measures are required.

Build Alternative 1: Add One General Purpose Lane

Construction

Extensive outreach program has been conducted as summarized in Appendix F. OCTA and Caltrans would continue the outreach program to keep residents, businesses, and any service providers within the affected area informed, and to inform the surrounding communities about the proposed project construction schedule, traffic-impacted areas and the traffic management plan.

Community disruption during project construction as a result of construction activities would be mitigated through various management strategies (e.g., traffic staging plan, alternative route strategies, etc.) as contained in the TMP. The draft TMP has been prepared (see Appendix D) and will be review and approved by Caltrans Design Division prior to the approval of Project Report.

The following mitigation measures would be implemented to minimize impacts to area residents and businesses along the construction zone from any required ramp closures:

- Business access will be maintained at all times during construction;
- Preliminary detour routes for all long-term closures have been identified to accommodate access changes lost due to the temporary long-term closures. Detour routes represent a short term inconvenience to both the traveling public but do not represent a substantial burden to either businesses (limited access) or the traveling public (substantially longer or indirect travel)
- No two consecutive/adjacent off-ramps or two consecutive/adjacent on-ramps in the same direction will be closed concurrently. Ramps that provide access immediately adjacent to the South Coast Plaza (South Coast Drive NB off-ramp), Bella Terra Mall (Beach Boulevard off-ramps) or the Westminster Mall (Bolsa Avenue NB and Goldenwest SB off-ramps) will not be closed from November 1 to January 31.
- Ramps that provide access immediately adjacent to the South Coast Plaza (South Coast Drive NB off-ramp), Bella Terra Mall (Beach Boulevard off-ramps) or the Westminster Mall (Bolsa Avenue NB and Goldenwest SB off-ramps) will not be closed from November 1st to Jan 31st.

Permanent

The following measures would reduce the potential impacts related to property acquisitions and relocations:

- The Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970 (Uniform Act) (Public Law 910646, 84 Statutes 1894) mandates that certain relocation services and payments be made available to eligible residents, businesses, and nonprofit organizations displaced by its projects. The Uniform Act provides for uniform and equitable treatment by federal or federally assisted programs of persons displaced from their homes, businesses, or farms and establishes uniform and equitable land acquisition policies.
- Where acquisition and relocation are unavoidable, the provisions of the Uniform Act and the 1987 Amendments, as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by the United States Department of Transportation (March 2, 1989), will be followed. An independent appraisal of the affected property will be obtained, and an offer for the full appraisal will be made.

Regardless of the extent of ROW impact, the property owners would be entitled to compensation to the extent provided by law in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended.

Build Alternative 2: Add Two General Purpose Lanes

Minimization and mitigation measures would be the same as Build Alternative 1.

Build Alternative 3: Express Facility

Minimization and mitigation measures would be the same as Build Alternative 1.

Chapter 5. Community Service Facilities

5.1 AFFECTED ENVIRONMENT

This section describes existing community service facilities, utility systems, and circulation and access systems within the project study area. The study area is defined as the area that could be directly affected by proposed project construction and the nearby area that could be indirectly affected as a result of traffic detours. For the purpose of this study, a study area radius of 500 feet from the I-405 corridor within the project limits was used to identify potentially affected community facilities. However, a study area radius of 0.5 miles from the I-405 corridor within the project limits was used to identify parks and recreational facilities in order to be consistent with the 4(f)² analysis (see Draft Section 4(f) and 6(f) Evaluation, available under separate cover). Figure 5-1 depicts the location of community facilities within the project study area. Figure 5-2 depicts the location of parks and recreational facilities within the project study area.

5.1.1 Community Services and Facilities

Schools

The project study area is served by the Westminster School District, Newport Mesa Unified School District, Huntington Beach Union High School District and various private schools. There are 14 schools located within the project study area, as listed in Table 5-1.

Healthcare Facilities

Several medical facilities are located within the project study area, including:

- Beverly Manor Nursing and Rehabilitation Center at 3000 Beverly Manor Drive, Seal Beach
- New Golden Health Center at 5692 Westminster Boulevard, Westminster
- Huntington Pointe Surgery at 15039 Goldenwest Street, Huntington Beach
- Orange Coast Memorial Medical Center at 9920 Talbert Avenue, Fountain Valley

² Note: Refers to Sections 4(f) and 6(f) of the Department of Transportation Act of 1966, as amended.

Table 5-1
Schools in the Project Study Area

Name	Location
Hope Christian Academy Elementary School	6458 Westminster Boulevard, Westminster
Hope Christian Academy High School	6458 Westminster Boulevard, Westminster
Temple Beth David Preschool	6100 Hefley Street, Westminster
Westminster Lutheran Preschool	13841 Milton Avenue, Westminster
Willow Lane Preschool	14203 Willow Lane, Westminster
Land School	15151 Temple Street, Westminster
Valley Vista Continuation High School	9600 Dolphin Avenue, Fountain Valley
El Dorado Preschool	9430 Warner Avenue, Fountain Valley
Fountain Valley High School	17816 Bushard Street, Fountain Valley
Huntington Valley Preschool	9779 Starfish Avenue, Fountain Valley
University of Phoenix	10540 Talbert Avenue, Fountain Valley
California Elwyn Institute	18325 Mount Baldy Circle, Fountain Valley
Charles W. Tewinkle Middle School	3224 California Street, Costa Mesa
Pleasant View School	16692 Landau Lane, Huntington Beach

Source: Parsons, 2010

Religious Facilities

Numerous religious facilities representing many denominations are in and near the study area. Table 5-2 lists the ten places of worship located within the project study area.

Table 5-2
Religious Facilities in the Project Study Area

Name	Location
First Christian Church of Leisure World	2450 Beverly Manor Drive, Seal Beach
Congregation Sholom	13044 Del Monte Drive, Seal Beach
Westminster Lutheran Church	13841 Milton Avenue, Westminster
Westminster Good Samaritan	14362 Willow Lane, Westminster
Temple Beth David	6100 Hefley Street, Westminster
Galilee Korean Baptist Church	8211 San Angelo Drive, Huntington Beach
Huntington Valley Baptist Church	9779 Starfish Avenue, Fountain Valley
St. Barnabas Orthodox Church	3505 Cadillac Avenue, Costa Mesa
Swords for Christ Ministries	3303 Harbor Boulevard, Costa Mesa
Calvary Chapel Daejeon	1067 Concord Street, Costa Mesa

Source: Parsons, 2010

Source: Parsons 2010

Figure 5-1: Community Service Facilities in the Project Study Area

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Community Centers and Libraries

No community centers are located within the project study area.

Two libraries are located within the project study area.

- Leisure World Branch Library at 1121 Northwood Road, Seal Beach
- Fountain Valley Library at 17635 Los Alamos Street, Fountain Valley

Park and Recreational Facilities

A number of park and recreation facilities lie within the project study area, as listed in Table 5-3 and shown in Figure 5-2. All public parks listed in Table 5-3 are considered Section 4(f) resources and are subject to protection under Section 4(f) of the Department of Transportation Act of 1966 (codified in federal law at 49 U.S.C. 303). Section 4(f) analysis has been conducted as part of the environmental document preparation for this project. Impacts to each park pertaining to Section 4(f) are also presented in Table 5-3. The impacts are considered “de minimis” pursuant to Caltrans Environmental Handbook, Volume 1, Chapter 20 and FHWA Technical Advisory (Technical Advisory T 6640.8A).

Table 5-3
Park and Recreational Facilities in the Project Study Area

Figure No.	Name	Location	Explanation of Section 4(f) Use
1	Shiffer Park	3143 Bear St., Costa Mesa	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
2	Paularino Park	1040 Paularino Pl., Costa Mesa	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
3	Wakeham Park	3400 Smalley Rd., Costa Mesa	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
4	Wimbledon Park	3440 Wimbledon Way, Costa Mesa	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
6	Gisler Park	1250 Gisler Ave., Costa Mesa	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
7	Smallwood Park	1646 Corsica Ave., Costa Mesa	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
8	Moon Park	3377 California St., Costa Mesa	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
9	Suburbia Park	3302 Alabama Circle, Costa Mesa	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
10	Ellis Park	10301 Ellis Ave., Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
11	Los Alamos Park	17901 Los Alamos St., Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
12	Senior Community Center	17967 Bushard St., Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.

Table 5-3
Park and Recreational Facilities in the Project Study Area

Figure No.	Name	Location	Explanation of Section 4(f) Use
13	Colony Park	10252 Cinco De Mayo, Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
14	La Capilla Park	9720 La Capilla Ave., Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
15	Plavan Park	9745 Warner Ave., Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
16	Mile Square Recreation Center	Euclid and Warner , Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
17	McDowell Park	17200 Oak St., Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
18	Westmont Park	Between El Rancho Ave and La Fiesta Ave., Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
19	Nieblas Park	9300 Gardenia St., Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
20	Pleasant View Park	16692 Landau Ln., Huntington Beach	Build Alternative 1 – No use. Build Alternative 2 - Acquisition Area: 1,210 sq/ft; Direct Use: 1,210 sq/ft. Build Alternative 3 - Acquisition Area: 1,210 sq/ft; Direct Use: 1,210 sq/ft.
21	Vista View Park	9235 Honeysuckle Ave., Fountain Valley	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
22	Russel C. Paris Park	8600 Palos Verdes Ave., Westminster	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
23	Sun View Park 16193 Sher Ln.	Huntington Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
24	Park West Park	8301 McFadden Ave., Westminster	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
25	College Park	15422 Vermont St., Westminster	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
26	Land Park	15151 Temple St., Westminster	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
27	Greer Park	6900 McFadden Ave., Huntington Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
28	Clegg-Stacey Park	6311 Larchwood Dr., Huntington Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
29	Franklin Park	14422 Hammon Ln., Huntington Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
30	Buckingham Park	6502 Homer St., Westminster	Build Alternative 1 - Acquisition Area: 3,151 sq/ft; Direct Use: 3,151 sq/ft. Build Alternative 2 - Acquisition Area: 3,151 sq/ft; Direct Use: 3,151 sq/ft. Build Alternative 3 - Acquisition Area: 3,151 sq/ft; Direct Use: 3,151 sq/ft.

Table 5-3
Park and Recreational Facilities in the Project Study Area

Figure No.	Name	Location	Explanation of Section 4(f) Use
31	Cascade Park	14100 Cascade St., Westminster	Build Alternative 1 - Acquisition Area: TBD; Direct Use: None; Temporary Use: TBD Build Alternative 2 - Acquisition Area: 4,152 sq/ft; Direct Use: 4,152 sq/ft. Build Alternative 3 - Acquisition Area: 4,152 sq/ft; Direct Use: 4,152 sq/ft.
33	Indian Village Park	6060 Hefley St., Westminster	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
34	Bolsa Chica Park	13660 University St., Westminster	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
35	Westgrove Park	5372 Cerulean Ave., Garden Grove	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
36	Almond Park	4600 Almond Ave., Seal Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
37	Heather Park	Heather and Lampson, Seal Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
38	Aster Park	Aster and Candleberry, Seal Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
39	Blue Bell Park	Almond and Bluebell, Seal Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
40	Seal Beach Tennis Center	3900 Lampson Ave., Seal Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
42	Edison Park and Gardens	99 College Dr., Seal Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
43	College Estates Park	808 Steely Ave., Long Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
44	Rush Park	3021 Blume Dr., County of Los Angeles	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
45	El Dorado West Regional Park	2800 Studebaker Rd , Long Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
46	El Dorado Nature Center	7550 E. Spring St , Long Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
47	Los Alamitos Community Center	10911 Oak St., Seal Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
48	El Dorado East Regional Park	7550 E. Spring St., Long Beach	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.
49	Bloomfield Park	21420 Pioneer Blvd., Lakewood	No 4(f) use - no direct, temporary or constructive use required for any project build alternatives.

Source: Parsons, 2011

Figure 5-2: Parks and Recreational Facilities in the Project Study Area

Cemeteries

One cemetery, Harbor Lawn - Mt. Olive Memorial Park and Mortuary, is located within the project study area at 1625 Gisler Avenue in Costa Mesa.

Community Resources

Leisure World is a private, age-restricted, gated community located at the western end of the project corridor. The main entrance is located at 1901 Golden Rain Road in the City of Seal Beach. The community consists of 533 acres and approximately 9,000 residents. It contains housing for those over the age of 55, religious and healthcare facilities, a library and various recreational and entertainment facilities, including a golf course.

South Coast Plaza is an upscale, luxury shopping mall located in Costa Mesa, recognized as one of the most notable shopping centers in the United States. It contains 280 boutiques and specialty stores, 30 restaurants and 4 performing arts venues within more than 2.8 million square feet. Approximately 25 million people visit South Coast Plaza annually.

Emergency and Protective Services

The project study area is under the jurisdiction of different law enforcement and fire protection agencies, as listed below. The California Highway Patrol is responsible for law enforcement on I-405 within the project study area.

Unincorporated Orange County (Rossmoor)

Law enforcement in the community of Rossmoor is provided by the North Patrol of the Orange County Sheriff's Department. Fire protection is provided by the Orange County Fire Authority. No police or fire stations in Rossmoor are located within the project study area.

City of Seal Beach

Law enforcement in the City of Seal Beach is provided by the Seal Beach Police Department. The nearest police station is located at 911 Seal Beach Boulevard. Fire protection is provided by the Orange County Fire Authority. Station #48 is located within the project study area at 3131 Beverly Manor Road in Seal Beach.

City of Westminster

Law enforcement in the City of Westminster is provided by the Westminster Police Department. No police stations in Westminster are located within the project study area. Fire protection is provided by the Orange County Fire Authority. Station #65 is located within the project study area at 6061 Hefley Street in Westminster.

City of Fountain Valley

Law enforcement in the City of Fountain Valley is provided by the Fountain Valley Police Department. Fire protection is provided by the Orange County Fire Authority. No police or fire stations in Fountain Valley are located within the project study area.

City of Garden Grove

Law enforcement in the City of Garden Grove is provided by the Garden Grove Police Department. Fire protection is provided by the Orange County Fire Authority. No police or fire stations in Garden Grove are located within the project study area.

City of Huntington Beach

Law enforcement in the City of Huntington Beach is provided by the Huntington Beach Police Department. Fire protection is provided by the Orange County Fire Authority. No police or fire stations in Huntington Beach are located within the project study area.

City of Los Alamitos

Law enforcement in the City of Los Alamitos is provided by the Los Alamitos Police Department. Fire protection is provided by the Orange County Fire Authority. No police or fire stations in Los Alamitos are located within the proposed project study area.

City of Costa Mesa

Law enforcement in the City of Costa Mesa is provided by the Costa Mesa Police Department. Fire protection is provided by the Orange County Fire Authority. No police or fire stations in Costa Mesa are located within the project study area.

5.1.2 Utilities

Like any fully developed communities, many utility lines exist within the project area including overhead electrical and transmission lines; underground electrical, gas, sanitary sewer, water, TV/cable, telephone, storm drain, and oil lines; water and gas line casings on existing bridge structures; and water, electric, telephone, and television lines on existing structures.

Water Service

The Orange County portion of the study area is located within the boundary of Orange County Water District (OCWD) service area. OCWD's service area covers more than 350 square miles, and includes Orange County's vast groundwater basin. The basin provides a water supply to 23

cities and water agencies, serving more than 2.3 million people with more than half of their water demand.

Wastewater Treatment

Wastewater collection, treatment, and disposal within the project study area is provided by the Orange County Sanitation District (OCSD). OCSD maintains two major facilities within Orange County. One OCSD facility is located within the project study area at 10844 Ellis Avenue in the City of Fountain Valley.

Solid Waste Disposal and Recycling

Solid waste collection, recycling, and yard waste disposal within the Orange County portion of the project study area are provided by Orange County Waste & Recycling. The County operates three solid waste landfills. The closest landfill facility to the project study area is Frank R. Bowerman Landfill, located at 11002 Bee Canyon Access Road in Irvine. Frank R. Bowerman Landfill is approximately 725 acres with 534 acres permitted for refuse disposal. The landfill opened in 1990 and is scheduled to close in approximately 2053.

Other Utilities

Southern California Gas Company and Southern California Edison Company provide gas and electricity services in the study area. Several companies provide communication services within the study area including AT&T, Verizon Communications, XO Communications, QWest World Com/Sprint, and MCI World Com/Sprint.

5.1.3 Circulation and Access

The entire length of I-405 is part of the National Highway System, the Department of Defense Priority Network, the Interstate Highway System, and the Strategic Highway Corridor Network. The 1990 Federal Surface Transportation Assistance Act (STAA) identifies I-405 as a “National Network” route for STAA trucks. Strategically, I-405 is a critical transportation link for national defense and transportation security providing direct and indirect access to major military installations in the west including Los Angeles Air Force Base, Seal Beach U.S. Naval Weapons Station, and Camp Pendleton.

On a regional level, I-405 provides access between cities in Orange and Los Angeles Counties. I-405 is used for commuting and inter-regional travel, along with direct and indirect access to employment centers, recreational attractions, shopping malls, medical centers, universities, airports, and other land uses. A segment of the freeway in the northern portion of the project area is one of the heaviest travelled in the nation.

I-405 freeway serves the beach communities of northern Orange County, including parts of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, Garden Grove, and Seal Beach. The community of Rossmore, an unincorporated area of Orange County, and the Seal Beach U.S. Naval Weapons Station are also served by I-405. Twelve service interchanges and three system interchanges with SR-73, SR-22 East, and I-605/SR-22 west are within the project corridor.

Public Transit

OCTA operates several bus lines along and through the project study area, as listed in Table 5-4.

Table 5-4
OCTA Public Transit Lines in the Proposed Project Study Area

Line	Project Corridor Facility	Approximate Location
Along Project Corridor		
701	I-405	SR-22E/I-405 Interchange to Beach Boulevard
211	I-405	SR-22E/I-405 Interchange to Harbor Blvd. & Bristol St. to I-405/I-55 Interchange
60	I-405	I-605/I-405 Interchange to Los Alamitos Boulevard
56	I-22	SR-22E/I-405 Interchange to Hoover Street
North/South Crossings		
164	I-405	Los Alamitos Boulevard
21	I-405	Valley View Street
25/62	I-405	Goldenwest Street
29	I-405	Beach Boulevard
33	I-405	Magnolia Avenue
35	I-405	Brookhurst Street
37	I-405	Ward Street & Euclid Street
172	I-405	Euclid Street
43	I-405	Harbor Boulevard
55/57/213/464	I-405	Bristol Street
213/464	I-405	I-55
East/West Crossings		
60	I-405	Westminster Avenue
64	I-405	Bolsa Avenue
66	I-405	McFadden Avenue
70	I-405	Edinger Avenue
72	I-405	Warner Avenue
76	I-405	Talbert Avenue

Source: Parsons, 2010

Rail

Both Metrolink and Amtrak provide rail service to Orange County. No passenger rail exists within the project study area. There are two rail crossings along the project corridor, including the Navy-owned line north of Westminster Mall, near to the Edwards Street overcrossing, and a Union Pacific line near to the McFadden Avenue overcrossing.

Bicycle and Pedestrian Facilities

Twelve bike paths traverse the project study area, nine of which are classified as Class II bike paths (a marked lane exclusively for bike travel on roadways) and three of which are classified as Class I (a dedicated exclusive bike path meant for bike and pedestrian traffic). One equestrian trail, along the Santa Ana River, is located within the study area. There is one pedestrian overcrossing located at Heil Avenue, serving the communities of Huntington Beach, Westminster, and Fountain Valley Parking.

Parking spaces are available throughout the project study area, both publicly owned (i.e. on-street parking) and privately owned.

5.2 PERMANENT IMPACTS

5.2.1 Community Services and Facilities

No Build Alternative

No impact to community services and facilities would occur on a permanent basis because there would be no acquisition of public or private parkland or relocation of any community service facilities, nor would there be a permanent impairment of access, as a result of the No Build Alternative implementation. It should be noted, however, that with increased congestion and decreased operational speeds along the I-405 corridor, it is anticipated that more motorists would increasingly seek alternative routes to their destinations and may avoid freeway use or exit the system in advance of their intended destination thereby, using the local street network. This overflow traffic would be expected to worsen local traffic conditions, potentially resulting in increased congestions and associated level of service decreases. In turn, these conditions could adversely affect emergency response vehicle response times.

Build Alternative 1: Add One General Purpose Lane

The proposed project would not result in impacts to school, healthcare, religious institutions, community centers or libraries, community resources, or cemeteries.

The proposed project would require sliver acquisitions of two public parks, approximately 3,200 square feet (0.07 acres) for Buckingham Park (located at 6502 Homer Street in Westminster) and 4,200 square feet (0.09 acres) associated with Cascade Park (located at 14100 Cascade Street in Westminster). Additionally, the construction of the proposed project would include a new Euclid Street southbound I-405 on-ramp and require a 2,000 square aerial easement to accommodate the structure over the Santa Ana River Trail. After construction of the ramp is complete, the structure would continue to allow for recreational use of the trail on both riverbanks and would not reduce the width of, or access to, the trails. It should be noted, however, that the proposed acquisitions are associated with non-recreational-related facilities (i.e., an existing street [i.e., Edwards Street] for Buckingham Park and drainage ditch for Cascade Park). Although the overall acreage of these parks would be slightly reduced, these acquisitions would not adversely affect any of the activities, features, or attributes and under 4(f) the level of impacts to these two parks is considered “de minimis” pursuant to Caltrans Environmental Handbook, Volume 1, Chapter 20 and FHWA Technical Advisory (Technical Advisory T 6640.8A).

No impacts to either the Santa Ana River or San Gabriel River trails would result with implementation of the proposed project.

One privately owned miniature golf facility within Boomers! would be subject to relocation under all build alternatives. Based on current real estate market data, there are adequate replacement properties within the vicinity to relocate this facility (see Section 4.2.2 – ROW and Relocation Impacts).

This alternative would provide beneficial uses in addition to providing trip reliability. These beneficial uses include providing a less congested freeway conditions for emergency vehicles to travel during emergency or traffic incident response.

Build Alternative 2: Add Two General Purpose Lanes

The proposed project would not result in direct, permanent impacts to school, healthcare, religious institutions, community centers or libraries, community resources, or cemeteries.

Impacts to public parks and the Santa Ana River Trail would be the same as Build Alternative 1 with one additional park being affected. Pleasant View Park located at 16692 Landau Lane in Huntington Beach would require a sliver take of approximately 1,200 square feet (0.03 acres) acquired as part of the proposed project. The area currently consists of landscaping and does not contain recreational facilities or fields. Although the overall acreage of this park would be slightly reduced, this acquisition would not adversely affect any of the activities, features, or attributes and under 4(f) the level of impact is classified as “de minimis”.

One privately owned miniature golf facility within Boomers! would be subject to relocation under all build alternatives. Since Boomers! is a private recreational center, it is not subject to protection under Section 4(f). Based on current real estate market data, there are adequate replacement properties within the vicinity to relocate this facility (see Section 4.2.2 – ROW and Relocation Impacts).

This alternative would provide beneficial uses in addition to providing trip reliability. These beneficial uses include providing a less congested freeway conditions for emergency vehicles to travel during emergency or traffic incident response.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 2.

5.2.2 Utilities

The proposed project involves roadway improvements; there would be no impacts to utility demands over the long-term under the No Build and any of the Build Alternatives.

5.2.3 Circulation and Access

No Build Alternative

Sections of the I-405 corridor currently operate at unacceptable levels of traffic congestion both in the NB and SB directions. Projected population and employment growth trends indicate that transportation demand in the I-405 corridor will continue to increase in future years. Under no-build conditions, by year 2035, access to various facilities within the study intersections would be adversely affected during both the morning and evening peak periods.

A traffic analysis was performed for three segments of the I-405 corridors, including SR-73 to Brookhurst, Brookhurst to SR-22 East, and SR-22 East to I-605 for the opening year (2020) and horizon year (2040). Without any improvements in the I-405 corridor, additional traffic congestion resulting from regional growth would further degrade traffic level of service (LOS) and worsen operational deficiencies in the future (see Table 5-5). Future increased traffic congestion will result in reduced travel speeds and longer commute times for both private vehicles and public transit.

No impacts to rail services, bicycle and pedestrian facilities, and parking would occur under the No build Alternative.

Table 5-5
Predicted Level of Services at Various Segments of I-405 Under No Build
Conditions for Year 2020 and 2040

Study Segment	Existing (2009)				Year 2020 Forecast				Year 2040 Forecast			
	AM		PM		AM		PM		AM		PM	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
SR-73 to Brookhurst	C	E	F	D	D	F	D	D	F	F	F	F
Brookhurst to SR-22 East	F	F	F	E	F	F	F	F	F	F	F	F
SR-22 East to I-605	F	F	E	F	F	F	F	F	F	F	F	F

Source: Draft Traffic Analysis, Albert Grover and Associates, 2010

Build Alternative 1: Add One General Purpose Lane

Traffic analysis was performed for three segments of the I-405 corridor, including SR-73 to Brookhurst, Brookhurst to SR-22 East, and SR-22 East to I-605 under the Build Alternative 1 scenario for the opening year (2020) and horizon year (2040). Results of the traffic operational analysis indicated the LOS of three out of six segments in the NB and SB direction along the study corridor would be improved during the AM peak hours and three out of six segments in the NB and SB would be improved during the PM peak hours by the opening year 2020 as compared to the No Build Alternative scenario (see Tables 5-5 and 5-6). By the horizon year 2040, only one segment in the NB direction during the AM peak hours and one segment in the SB direction during the PM peak hours would have the improvement in the LOS levels as compared to the No Build Alternative scenario (see Tables 5-5 and 5-6).

Implementation of Build Alternative 1 would provide continuous access to the HOV and GP lanes; thus, benefiting the buses and carpools using the I-405 corridor within the project limits. No impacts to rail services, bicycle, or pedestrian facilities would occur over the long term under Build Alternative 1.

Table 5-6
Predicted Level of Services at Various Segments of I-405 Under Build Alternative
1 Conditions for Year 2020 and 2040

Study Segment	Existing (2009)				Year 2020 Forecast				Year 2040 Forecast			
	AM		PM		AM		PM		AM		PM	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
SR-73 to Brookhurst	C	E	F	D	D	F	E	D	E	F	F	E
Brookhurst to SR-22 East	F	F	F	E	E	F	F	E	F	F	F	F
SR-22 East to I-605	F	F	E	F	E	E	E	E	F	F	F	F

Source: Draft I-405 Traffic Analysis, Albert Grover and Associates, 2010

Based on preliminary design information, approximately 720 parking spaces out of the current inventory of 2243 spaces being utilized by 17 properties would be potentially lost as part of the ROW acquisition. In addition, approximately 13 on-street parking spaces could be lost. Table 5-7 lists the parcels containing parking spaces subject to acquisition, current land use, existing number of parking spaces, and the number of potentially affected parking spaces. A preliminary assessment of the level of impacts is made based on the consideration of number of available parking spaces, type of business, and the remaining spaces. As indicated in Table 5-7, parking losses could have a noticeable effect only at one location, 15042 Goldenwest Street in Westminster, where El Torito Restaurant is located. Based on the parking standard of the City of Westminster for standing restaurant of 1 space for each 250 sq ft of leasable space, El Torito Restaurant, which is estimated to have no more than 10,000 sq ft in leasable space, would require about 40 parking spaces. Thus no adverse impact to El Torito Restaurant is anticipated; however, this information is subject to verification during final design. Note that several parking spaces could potentially be saved by the design refinement and space management such as restriping of the parking area and driveway adjustment. OCTA and Caltrans would work closely with the property and business owners to minimize impacts from the loss of parking. Examples of mitigation measures could include space management and replacement options. For those impacts which are unavoidable, property owners would receive compensation for the partial loss of land as part of the ROW acquisition.

Build Alternative 2: Add Two General Purpose Lanes

Results of the traffic operational analysis for Build Alternative 2 scenario indicated the LOS of four out of six segments in the NB and SB direction along the study corridor would be improved during the AM peak hours and four out of six segments in the NB and SB would be improved (from F to D) during the PM peak hours by the opening year 2020 as compared to the No Build Alternative scenario (see Tables 5-5 and 5-8). By the horizon year 2040, all three segments in the NB direction would have improved LOS (from F to E) during the AM peak hours as compared to the No Build Alternative scenario. In addition, one segment in the NB direction and two segments in the SB direction would have improved LOS during the PM peak hours as compared to the No Build Alternative scenario (see Tables 5-5 and 5-8).

Implementation of Build Alternative 2 would provide continuous access to the HOV and GP lanes; thus, benefiting the buses and carpools using the I-405 corridor within the project limits.

No impacts to rail services, bicycle or pedestrian facilities would occur over the long term under Build Alternative 2.

Parking impacts under Build Alternative 2 would be the same as Build Alternative 1.

Table 5-7
Preliminary Parking Impact Assessment Under All Build Alternatives

APN	Location	Current Use	Owner	Current Parking Spaces	Impacted Spaces	Remaining Spaces	Potential Impacts
156-091-14	18120 Brookhurst Street Fountain Valley, 92708	Claim Jumper	Gluckstein Fountain Valley	477	8	469	Low - Shared parking with mall
169-131-17	17570 Brookhurst Street Fountain Valley, 92708	Multi-Commercial building; currently for sale or lease	17570 Brookhurst, LLC	389	15	374	Low - Shared parking with other businesses
142-382-13	15042 Goldenwest Street Westminster, 92683	El Torito Restaurant	Shapell Industries, Inc	223	35	188	Low to Medium – Business could be dependent on parking
195-141-04	5952 Westminster Boulevard Westminster, 92683	Ranchito Super Market & Mini mall	Brighton Investment, Inc	158	1	157	Low - Shared parking with other businesses
195-373-09	100 Westminster Mall Westminster, 92683	Sears Auto Center	Sears Roebuck & Co	145	20	125	Low - Shared parking with mall
142-012-02	7300 Bolsa Avenue Westminster, 92683	Golden West Circle Multi-Commercial facility	Golden Akar Associates	71	1	70	Low - Shared parking with other businesses
096-522-04	No Specific Street Address Westminster, 92683	Custom Comfort Mattress	G B Enterprises	60	4	56	Low - Shared parking with other businesses
096-522-02	14980 Goldenwest Street Westminster, 92683	Big 5 Sporting Goods	G B Enterprises	60	4	56	Low - Shared parking with other businesses
143-294-01	16800 Magnolia Street Fountain Valley, 92708	Boomers! parking	John Huish	91	91	0	Low-Business will be acquired
143-301-34	9125 Recreation Circle Fountain Valley, 92708	Days Inn	EKBK Inc	49	49	0	Low – Business will be acquired
143-301-21	9025 Warner Avenue Fountain Valley, 92708	Multi-Commercial – Starbucks, Verizon, etc	Arman Akarkian	27	1	26	Low - Shared parking with other businesses
169-162-02	17900 Brookhurst Fountain Valley, 92708*	Medical building	Halby Family Limited Partnership	24	9	15	Low - Shared parking with other businesses
143-301-37	Close to 16800 Magnolia Street Fountain Valley, 92708*	Boomers! Restaurant parking	Orange County Flood Control District	102	102	0	Low – Business will be acquired
143-301-39	9065 Warner Avenue Fountain Valley, 92708	Sports Authority	American Southwest	228	228	0	Low – Business will be acquired
143-301-33	9105 Recreation Circle Fountain Valley, 92708	Fountain Valley Skating Center	RTL Properties, Inc	62	62	0	Low – Business will be acquired
143-301-32	In the northwest corner of Warner Avenue and Magnolia Street Interchange and underlying the Boomers parking lot and go-kart track	Boomers! parking		77	77	0	Low – Business will be acquired
No APN	NB Beach Boulevard approaching McFadden Avenue	State highway	Caltrans		13		Low – Parking lots for businesses are available.
Totals (the number of impacted space does not include on-street parking impact):				2,243	720	1,536	---

Source: Parking numbers estimated by Parsons; Real estate information provided by Paragon Partners, Ltd.

Table 5-8
Predicted Level of Services at Various Segments of I-405 Under
Build Alternative 2 Conditions for year 2020 and 2040

Study Segment	Existing (2009)				Year 2020 Forecast				Year 2040 Forecast			
	AM		PM		AM		PM		AM		PM	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
SR-73 to Brookhurst	C	E	F	D	D	F	E	D	E	F	F	E
Brookhurst to SR-22 East	F	F	F	E	D	D	D	D	E	F	F	E
SR-22 East to I-605	F	F	E	F	D	D	D	D	E	F	E	F

Source: Draft I-405 Traffic Analysis, Albert Grover and Associates, 2010

Build Alternative 3: Express Lane Facility

Results of the traffic operational analysis for Build Alternative 3 scenario indicated the LOS of four out of six segments in the NB and SB direction along the study corridor would be improved during the AM peak hours and four out of six segments in the NB and SB would be improved (from F to D for one segment and from F to E for five segments) during the PM peak hours by the opening year 2020 as compared to the No Build Alternative scenario (see Tables 5-5 and 5-10). By the horizon year 2040, only one segment in the SB direction during the PM peak hours would have the improved LOS as compared to the No Build Alternative scenario (see Tables 5-5 and 5-9).

Table 5-9
Predicted Level of Services at Various Segments of I-405 Under
Build Alternative 3 Conditions for year 2020 and 2040

Study Segment	Existing (2009)				Year 2020 Forecast				Year 2040 Forecast			
	AM		PM		AM		PM		AM		PM	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
SR-73 to Brookhurst	C	E	F	D	D	F	E	D	F	F	F	E
Brookhurst to SR-22 East	F	F	F	E	D	E	E	E	F	F	F	F
SR-22 East to I-605	F	F	E	F	E	E	E	E	F	F	F	F

Source: Draft I-405 Traffic Analysis, Albert Grover and Associates, 2010

Implementation of Build Alternative 3 would provide continuous access to the HOV and GP lanes; thus, benefiting the buses and carpools using the I-405 corridor within the project limits. No impacts to rail services, bicycle or pedestrian facilities would occur over the long term under Build Alternative 3.

Parking impacts under Build Alternative 3 would be the same as Build Alternative 1.

5.3 CONSTRUCTION IMPACTS

5.3.1 Community Services and Facilities

No Build Alternative

There would be no construction impacts to community services and facilities under the No Build Alternative.

Build Alternative 1: Add One General Purpose Lane

Construction of the proposed improvements along the I-405 corridor would mostly occur within the existing State ROW. During construction of the proposed project, access to Buckingham Park, Cascade Park, or Pleasant View Park would not be impaired. However, access to the bike trails may be impaired due to construction activities above the trails. The San Gabriel River Trail would remain open during construction and the proposed project would not result in loss of access to the trail. However, the proposed project would result in temporary closure of the Santa Ana River Trail, one riverbank at a time. Access would remain for at least one riverbank trail at all times, but there would be temporary overall reduction of access to the trail system during construction. The restriction of access to the bike trails would be temporary and would be restored after construction of the proposed project is complete. Therefore, use of these recreation resources would be minor and, with future consultation with the operating agencies and property owners, will likely be considered de minimis use under Section 4(f).”No temporary closure of any community service and facilities would be required during construction period. However, temporary ramp and adjacent local street closures could occur on an occasional basis to facilitate construction. Implementation of the TMP as outlined in Section 4.6 would minimize impact to the use of community services and facilities. The draft TMP has been prepared (see Appendix C) and will be finalized during the final design phase when site specific information is available. The contractor would also be required to adhere to standard provisions for public works construction to provide an advance notice to local emergency response providers prior to closing streets to facilitate construction. Impacts to community services and facilities would be minimized.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1 with one additional park (Pleasant View Park) being affected. During construction of the proposed project, access to Pleasant View Park may be impaired at the northeast entrance to the park. A pathway providing non-motorized vehicles and pedestrian access could be blocked temporarily during construction; however, once the proposed project is operational, all access restrictions would be eliminated.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 2.

5.3.2 Utilities**No Build Alternative**

Since there would be no construction under this alternative, there would be no impacts to utilities under the No Build Alternative.

Build Alternative 1: Add One General Purpose Lane

Construction of Build Alternative 1 could result in temporary impacts to utilities, such as a short-term increase in utility demand and solid waste volume. Construction activities for Build Alternative 1 would not cause a substantial increase in the existing demand for electricity or require the development of new sources. Construction of Build Alternative 1 is not expected to result in a large amount of solid waste. No impacts to local solid waste facilities are anticipated.

Utilities relocation would be required during the construction period. A close coordination with the utility service providers would minimize this impact.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

5.3.3 Circulation and Access**No Build Alternative**

Since there would be no construction under this alternative, there would be no construction impacts on circulation and access systems.

Build Alternative 1: Add One General Purpose Lane

Construction of the proposed project would involve a prolonged period of construction. The Draft TMP (Appendix C), describes the action plan for minimizing impacts to community facilities during construction. The draft TMP will be finalized during the final design phase when site specific information is available. During this time, area residents and businesses located near the construction zones may occasionally experience some inconvenience due to construction equipment and material obstruction, traffic lane closure, and parking restriction. Motorists using I-405 may experience some travel delay due to temporary traffic lane and ramp closures to

accommodate freeway widening construction. Furthermore, as previously discussed temporary long-term closures would represent a temporary inconvenience to residents, businesses and business patrons within the I-405 improvement project area and would result in minimal increased travel times. All temporary long-term closures are supported by adequate detours, as shown in the RCS (Appendix C), and a robust local arterial street network. Access to all business will be maintained during construction of the I-405 improvement project and all are accessible from alternate freeway off-ramps and utilizing the local streets. Based on the short-term and temporary nature of the closures (10 to 30 days), the increased travel times and distances would not result in either a substantial economic effect on businesses or substantial delays or travels cost for residents or business patrons. Temporary construction easements (TCEs) would be required at various roadway segments under construction. However, access obstructions in and out of any residential homes and local businesses are not anticipated. On-street parking would be restored after construction is completed. A public outreach program would be implemented throughout the construction period to keep the public informed of the construction schedule and the scheduled roadway closures, including the detour routes.

During the construction phase of the project, some bicycle and pedestrian facilities could be disrupted by construction equipment and vehicles. Alternative bicycle and pedestrian paths would be provided to the maximum extent possible to minimize impacts during project construction. It should be noted that existing pedestrian crossings would be maintained during construction of the new pedestrian crossings in order to avoid disruptions to use of these facilities by the community.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

5.4 CUMULATIVE IMPACTS

5.4.1 Community Services and Facilities

No Build Alternative

There would be no cumulative impacts to community services and facilities under the No Build Alternative.

Build Alternative 1: Add One General Purpose Lane

No major construction projects are identified within the project corridors besides the SR-22 West County Connection (WCC) and the Costa Mesa Freeway (SR-55) improvements, which are anticipated to be completed before the commencement of the proposed project. No cumulative impacts to community services and facilities as a result of Build Alternative 1 construction are anticipated.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

5.4.2 Utilities**No Build Alternative**

There would be no cumulative impacts to utilities under the No Build Alternative.

Build Alternative 1: Add One General Purpose Lane

No major construction projects are identified within the project corridors besides the SR-22 WCC and the Costa Mesa Freeway (SR-55) improvements, which are anticipated to be completed before the commencement of the proposed project. No cumulative impacts to utilities as a result of Build Alternative 1 construction are anticipated.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

5.4.3 Circulation and Access**No Build Alternative**

Sections of the I-405 corridor currently operate at unacceptable levels of traffic congestion both on northbound and southbound directions. Projected population and employment growth trends indicate that transportation demand in the I-405 corridor would continue to increase in future years. Under no-build conditions, by year 2040, access to various facilities within the study intersections would be adversely affected during both the morning and evening peak periods. Without any improvements in the I-405 corridor, additional traffic congestion resulting from

regional growth would further degrade traffic level of service and worsen operational deficiencies in the future on a cumulative basis. Future increased traffic congestion would result in reduced travel speeds and longer commute times for both private vehicles and public transit.

Build Alternative 1: Add One General Purpose Lane

Implementation of the proposed project together with the other two committed projects within the project limits would add capacity to the I-405 GP lanes to accommodate future traffic demand during peak periods resulting in the reduction of traffic congestion conditions at various segments and interchanges. The effects to circulation and system access would be beneficial on a cumulative basis.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

5.5 INDIRECT IMPACTS**5.5.1 Community Services and Facilities****No Build Alternative**

Under the No Build Alternative, traffic congestion along I-405 corridor and interchanges would continue to worsen. Delays in emergency response and protective services due to continued deterioration of the freeway level of services would be expected.

Build Alternative 1: Add One General Purpose Lane

Traffic operation improvement resulting from the proposed project implementation would facilitate the use of community facilities and services; thus, enhancing the quality of life values in the surrounding areas. The effects would be beneficial.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

5.5.2 Utilities

Since no relocation of major utility systems are required under no build and build alternatives, no indirect or secondary impacts are anticipated to occur.

5.5.3 Circulation and Access

No Build Alternative

Under the no build conditions, the additional traffic congestion resulting from regional growth would further degrade traffic level of service and worsen operational deficiencies along the I-405 corridor. Traffic diversion through local streets could be expected resulting in inconvenient conditions and safety issues to area residents living adjacent to the I-405 corridor.

Build Alternative 1: Add One General Purpose Lane

Once the project is completed, congestion along the I-405 freeway within the project limits would be decreased and operations at various interchanges improved. The improvement to the level of the service along I-405 would encourage traffic that currently uses local streets to avoid congestion on the freeway to get back to the freeway. This indirect impact would be beneficial to local communities.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

5.6 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

No Build Alternative

Increasing level of traffic congestion along I-405 corridor cannot be avoided, minimized, or mitigated without implementing the improvements to increase the capacity of the freeway as outlined under the build alternatives.

Build Alternative 1: Add One General Purpose Lane

Community Services and Facilities

Extensive outreach program has been conducted as summarized in Appendix F. The OCTA and Caltrans would continue the outreach program to keep residents, businesses, and any service providers within the affected area informed, and to inform the surrounding communities about the proposed project construction schedule, traffic-impacted areas and the TMP.

Minimization measures, in addition to outreach programs, include:

- Provision of motorist information (existing changeable message signs, portable changeable message signs, stationary ground-mounted signs, traffic radio announcements and using the Caltrans Highway Information Network [CHIN]),
- Incorporation of traffic circulation construction strategies (lane closure restrictions during holidays and special local events, closure of secondary streets during construction to allow quick construction and re-opening, lane modifications (lane reductions, shifts) to maintain the number of lanes needed, allowing night work and extended weekend work, maintaining business access, and maintaining pedestrian and bicycle access), and;
- Implementation of alternate and detour routes strategies (street/intersection improvements (widening, pavement rehabilitation, removal of median, restriping, etc.) to provide added capacity to handle detour traffic, signal improvements, adjustment of signal timing and/or signal coordination to increase vehicle throughput, improve traffic flow and optimize intersection capacity, turn restrictions at intersections and roadways necessary to reduce congestion and improve safety, parking restrictions on alternate and detour routes during work hours to increase capacity, reduce traffic conflicts and improve access.

Impacts to community functions as a result of any required ramp closure would be minimized by the measures presented in Section 4.6.

Parks would remain open during construction, and potential permanent impacts to the parks would not result in the loss of existing recreational facilities. Compensation for property owners would be required for areas where parkland is permanently taken for freeway right-of-way. A new overcrossing would be added above the Santa Ana River trail system due to the Euclid I-405 southbound on-ramp, however only portions of the off-road trail system would be temporarily closed. Furthermore, coordination with the relevant parks and recreation departments would be encouraged during construction to ensure the safety of users in the parks and trails adjacent to the proposed project.

Utilities

The project would be designed to avoid adverse effects to existing service utilities. Close coordination with utility service providers and the implementation of public outreach program would minimize the impacts to utilities during the project construction.

Circulation and Access

Implementation of the TMP would minimize impacts related to circulation and access during the construction period.

OCTA and Caltrans would work with the railroad operators to minimize impacts when constructing over their facilities.

OCTA and Caltrans would work closely with affected property owners to identify means to avoid and minimize parking impacts. Example of avoidance and mitigation measures includes space management such as restriping of parking area and identifying parking replacement options. For those unavoidable, the property owners would receive compensation for the partial loss of land as part of the ROW acquisition.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

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Chapter 6. Economic Impacts

6.1 AFFECTED ENVIRONMENT

Implementation of the proposed project may have impacts to certain components of the local economy. This section examines the potential impacts related to local businesses, property values, and tax revenues.

The project study area is located within an extensively urbanized area of Orange County. The dominant land uses within the project study area include low and medium density residential (single- and multiple-family), commercial (neighborhood and regional), institutional (government and schools), light industrial (general manufacturing) and agricultural (row crops). A wide variety of commercial establishments contributing to local economy are located along both sides of the project corridor, such as fast-food stores, restaurants, small scale retail stores, large shopping centers, motels, etc. For example, the South Coast Plaza is one of the major economic centers in the South Coast Zone (see Figure 4-2 for the location). Bella Terra (formerly Huntington Beach Mall) is the major feature in the Beach Boulevard Zone and was recently redeveloped and now includes new shops, restaurants and theaters open late into the evenings providing local entertainment for residents in Westminster, Fountain Valley, and Huntington Beach. Westminster Mall is a regional center providing services to residents in Westminster, Huntington Beach, and Seal Beach. In addition to the various establishments, single family and multifamily residences are also situated along the project corridor.

6.2 PERMANENT IMPACTS

6.2.1 Business Displacement

No Build Alternative

No relocation of residences or businesses would be required under the No Build Alternative. However, as traffic congestion increases, it is anticipated that businesses that are highway dependent might be negatively affected by this alternative, as the consumers would tend to seek for alternate locations that are easier to reach.

Build Alternative 1: Add One General Purpose Lane

Up to four commercial establishments within the City of Fountain Valley would be subject to relocation to accommodate the proposed corridor improvements, as discussed in Section 4.2.2. These establishments are not considered specialized stores, and the consumers can find the similar products or services at alternate stores within the nearby vicinity. Based on the current market research, there are comparable locations that these businesses can be reestablished.

Relocation assistance payments and counseling would be provided to persons and businesses subject to replacement in accordance with the Uniform Relocation Act, as amended, and in conformance with all applicable regulations. All real property to be acquired would be appraised to determine its fair market value. An offer of just compensation, not less than the approved appraisal, would be made to each property owner. Economic impacts from displacement of these four businesses are not considered adverse.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

6.2.2 Employment Impacts**No Build Alternative**

No employment loss would occur under the No Build Alternative.

Build Alternative 1: Add One General Purpose Lane

Up to four commercial establishments within the City of Fountain Valley would be subject to full acquisition to accommodate the proposed corridor improvements. Approximately 50-90 employees would become unemployed if the owners of these businesses decided to discontinue their businesses (see Appendix B: Draft Relocation Impact Memorandum, 2010). The unemployment rate of the City of Fountain Valley based on Census 2000 was at 4.1 percent. As of September 2010, the unemployment rate of the City of Fountain Valley is reported at 8.0 percent (see Table 4-7). The rise in the unemployment rate is due mainly to the current recession that has been on-going in the U.S. for several years. However, this unemployment rate is considered to be relatively low as compared to the County of Orange of 9.6 percent and County of Los Angeles of 12.5 percent. In addition, the economy downturn is believed to end in the near future. The loss of employment as a result of business relocation would not adversely affect the local and regional economy over the long term.

However, it is estimated that the project would have a beneficial impact, result in approximately 32,000 direct/indirect/induced jobs (<http://www.fhwa.dot.gov/policy/otps/pubs/impacts/index.htm>).

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1. However, it is estimated that the project would also have a beneficial impact, resulting in approximately 34,000 direct/indirect/induced jobs.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1. However, it is estimated that the project would also have a beneficial impact, resulting in approximately 42,000 direct/indirect/induced jobs.

6.2.3 Fiscal Impacts

No Build Alternative

No partial or permanent acquisition of public or private land would be required under the No Build Alternative. No direct, permanent fiscal impacts would occur.

Build Alternative 1: Add One General Purpose Lane

Impacts to Local Businesses

The I-405 Improvement Project has several interchanges, and much of the ROW is set back enough to allow for implementation of the proposed project. However, as discussed in Section 4.2.2, the proposed project would affect four businesses. These businesses are likely to be relocated in the reasonable vicinity.

Some local businesses including restaurants, retail stores, shopping centers, gas and auto service stations, and hotels may also be indirectly affected. Positively affected businesses may include restaurants, retail stores, and shopping centers, which may experience an increase in patronage as a result of improved circulation.

Other communities in California with heavy congestion during peak hours have experienced a decrease in local patronage because long wait times and congestion deter individuals from exiting the freeway. The proposed project would lead to increases in average daily trips and an improvement in LOS. Decreased congestion along the I-405 corridor has the potential to allow regional motorists, as well as local residents, to reach businesses more efficiently, thereby allowing for increased visitation, faster customer turn-around and, consequently, increased revenues. This would be especially true for restaurants, retail stores, and shopping centers (e.g., IKEA and the South Coast Plaza) within the directly impacted area, as they are often destinations for residents and visitors.

Implementation of the proposed project would likely have a positive impact to businesses throughout the study area, because of the improved access efficiency to other highways and surface streets. This improved access can help the many commercial centers throughout the project area. Additionally, the potential loss of parking associated with the proposed alternatives is not anticipated to adversely affect the operation of businesses.

Moreover, businesses neighboring an improved interchange or on and off ramps could experience an increase in economic activity as improved access and an increased capacity on the roadway could increase the number of potential customers. These elements of the proposed project would generally improve community cohesion creating a more inviting condition to area residents and visitors.

Impacts to Property Values

Property values within the project area could be affected by displaced businesses, changes in the visual environment, improved access to community facilities and other residential areas, and nearby community enhancement projects. Displacement of four establishments at the recreational center located between Magnolia Street and Warner Avenue off I-405 within the City of Fountain Valley could essentially affect the property value of a few businesses remaining in the complex because it might discourage customers to visit this area where it used to have several facilities available to choose from. In contrary, improvement to access to community facilities and other residential areas as a result of the proposed freeway and associated roadway improvement could contribute to the increase in property value of both commercial and residential properties along the I-405 corridor.

It should be noted however, that a number of factors, in addition to those noted above, drive property values in the Orange County region, such as proximity to coastal areas, school districts, accessibility to public facilities and amenities, neighborhood affiliation, lifestyle, etc. However, the minor impacts related to displaced businesses and sliver takes compounded with the benefits to an improved facility, the change in property values are unlikely to be felt.

Impacts to Tax Revenue

Impacts associated with the removal of four businesses by ROW takes can result in losses to property and sales tax revenue for the local jurisdictions in which the removal takes place. This loss in tax revenue is usually minimal, however, with businesses relocating within the same municipality and continuing to pay taxes after resettling. To the extent practicable, businesses will be relocated within the areas and jurisdictions in which they were previously located. It should be noted however, that tax-related impacts to the jurisdiction in which it is located would only result if the business cannot be relocated within the same jurisdiction or if the business ceases operation. Moreover, partial acquisition of property by the proposed project would not normally affect tax revenue unless the use of the parcel is significantly affected.

Property Tax: Build Alternative 1 would require a permanent acquisition of approximately 12 acres from a total of 1,545 acres comprised of 155 parcels of public and privately owned land. Since the amount of land to be acquired is extremely small (0.76 percent) compared with the

total land of the affected parcels, the loss of property tax base as a result of Build Alternative 1 implementation would be very small and could be considered negligible countywide.

As for the four businesses that are subject to relocation, all of them are located in the City of Fountain Valley. Based on the current real estate data presented in the Draft Relocation Impact Memorandum (DRIM) prepared for this project, the total value of property tax paid by these four establishments are in the range of \$131,000 annually. The City of Fountain Valley received approximately 20 percent of the overall property tax revenues collected by the Orange County Treasurer Tax Collector. The City of Fountain Valley's adopted General Fund for 2010-2011 is approximately \$8.7 Million. Therefore the loss of property tax from these businesses would be around \$26,000, which is less than 0.3 percent of the total property tax revenue currently received by the City of Fountain Valley.

The former LA Fitness building in the City of Westminster would potentially be acquired because the access way would be affected by the proposed improvement. Based on the information available from RealQuest.com (accessed June 28, 2011), the building area is approximately 20,100 square feet on a 2-acre lot. The property tax reported by RealQuest.com is about \$25,500. According to loopnet.com, the property has been left vacant on or before 2004.

Sales Tax: Up to four commercial establishments within the City of Fountain Valley (Sports Authority, Days Inn, Fountain Valley Skating Center, and two out of four facilities of Boomers!) would be subject to relocation to accommodate the proposed corridor improvements. The sale tax revenues from these four businesses are estimated based on the average annual income reported by Real Estate Website (Manta.com), as shown in Table 6-1. Three out of four businesses are likely to be relocated within the City of Fountain Valley or the consumers can find the similar stores within the City, the net loss of sale tax revenue from these businesses from Build Alternative 1 implementation would be considered negligible. Two facilities at the Boomers! would be subject to relocation. Based on Draft Relocation Impact Memorandum (DRIM), prepared for this project, the displacement locations for this establishment may not be available within the City of Fountain Valley. In that event the entire facility of Boomers! is moved out of the City, the City could lose the sale tax revenue of up to \$50,000 per year.

Table 6-1
Estimated Annual Sale Tax Revenue from Properties Subject to Relocation

Jurisdiction	Tax Rate (percent) ¹	Property Subject to Relocation				Average Sale Tax
		Sports Authority	Days Inn	Fountain Valley Skating Center	Boomers!	
Average Taxable Sale ²		\$5,000,000	\$500,000	\$500,000	\$5,000,000	\$962,500
City of Fountain Valley	1	\$50,000	\$5,000	\$5,000	\$50,000	\$110,000
OCTA	0.5	\$25,000	\$2,500	\$2,500	\$25,000	\$55,000
State of California	7.25	\$362,500	\$36,250	\$36,250	\$362,500	\$797,500
Note: 1. California City & County Sales & Use Tax Rates are obtained from the State of California Board of Equalization website (accessed on June 24, 2011) 2. Average taxable sales for each business are obtained from Real Estate Data Sheet (source: Manta.com)						

Since no business currently occupies the former LA Fitness building, there would be no potential loss of sale tax by this Build Alternative.

Build Alternative 2: Add Two General Purpose Lanes

Build Alternative 2 would require a permanent acquisition of approximately 12 acres from a total of 1,594 acres comprised of 173 parcels of public and privately owned land. Since the amount of land to be acquired is extremely small (0.81 percent) compared with the total land of the affected parcels, the loss of property tax base as a result of Build Alternative 2 implementation is considered negligible.

The potential loss of property tax from the acquisition of four establishments in the City of Fountain Valley would be the same as that described in Build Alternative 1.

Impacts to sales tax and property values under Build Alternative 2 are the same as that described in Build Alternative 1.

Build Alternative 3: Express Lane Facility

Build Alternative 3 would require a permanent acquisition of approximately 15 acres from a total of 1,669 acres comprised of 189 parcels of public and privately owned land. Since the amount of land to be acquired is extremely small (0.88 percent) compared with the total land of the affected parcels, the loss of property tax base as a result of Build Alternative 3 implementation is considered negligible.

The potential loss of property tax from the acquisition of four establishments in the City of Fountain Valley would be the same as that described in Build Alternative 1.

Impacts to sales tax and property values under Build Alternative 2 are the same as that described in Build Alternative 1.

6.3 CONSTRUCTION IMPACTS

No Build Alternative

No construction impacts in regard to business displacement, employment, and fiscal impacts would occur under the No Build Alternative.

Build Alternative 1: Add One General Purpose Lane

Construction of the proposed improvements would result in minor temporary impacts to local business associated with inconveniences from construction activities. OCTA and Caltrans would notify area residents and area businesses of the construction schedules. Traffic and pedestrian detour routes would be provided to ensure that all businesses and residents are accessible during construction in the event temporary closure of traffic lanes or pedestrian walkway is required. These measures would also be included in the project TMP. Furthermore, as previously discussed temporary long-term closures would represent a temporary inconvenience to residents, businesses and business patrons within the I-405 improvement project area and would result in minimal increased travel times. All temporary long-term closures are supported by adequate detours, as shown in the RCS (Appendix C), and a robust local arterial street network. Access to all business will be maintained during construction of the I-405 improvement project and all are accessible from alternate freeway off-ramps and utilizing the local streets. Based on the short-term and temporary nature of the closures (10 to 30 days), the increased travel times and distances would not result in either a substantial economic effect on businesses or substantial delays or travels cost for residents or business patrons.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

6.4 CUMULATIVE IMPACTS

No Build Alternative

No cumulative impacts in regard to business displacement, employment, and fiscal impacts would occur under the No Build Alternative.

Build Alternative 1: Add One General Purpose Lane

Improvements to the I-405 corridor would remove traffic congestion along the important link between Los Angeles and Orange Counties, providing beneficial impacts to regional economy on a cumulative basis.

With the improvement to the level of service along I-405, business operations along the I-405 corridor network would likely be improved; thus, contributing to the increase in sale tax revenues. Improvement in mobility and trip reliability along the I-405 freeway and roadway network would encourage the residents to continue living in Orange County; thus contributing to the improvement to property values and property taxes on a cumulative basis.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

6.5 INDIRECT IMPACTS**No Build Alternative**

No indirect impacts in regard to business displacement, employment, and fiscal impacts would occur under the No Build Alternative. Severe traffic congestion would cause additional fuel consumption which could indirectly affect the local and regional economy. However, quantification of the impacts from induced fuel consumption as a result of traffic congestion is beyond the scope of this CIA.

Build Alternative 1: Add One General Purpose Lane

Implementation of the proposed project would increase mobility, improve trip reliability, maximize throughput, and optimize operations of the I-405 and associated interchanges. Access to local businesses along the I-405 corridor could be enhanced as a result of the proposed improvements project, and as such could be considered an indirect beneficial impact.

Build Alternative 2: Add Two General Purpose Lanes

Impacts would be the same as Build Alternative 1.

Build Alternative 3: Express Lane Facility

Impacts would be the same as Build Alternative 1.

6.6 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

No Build Alternative

No avoidance, minimization, and mitigation measures are required.

Build Alternative 1: Add One General Purpose Lane

Construction

OCTA and Caltrans would notify area residents and area businesses of the construction schedules (no less than two weeks in advance). Impacts to area residents and businesses as a result of any required ramp closure would be minimized by the measures identified in the RCS (Appendix C) and as summarized in Section 4.6. Traffic and pedestrian detour routes would be provided to ensure that all businesses and residents are accessible during construction in the event temporary closure of traffic lanes or pedestrian walkway is required. These measures would also be included in the project TMP (Appendix D).

Permanent

Economic impacts and employment impacts from the Build Alternative 1 implementation are not considered adverse, and therefore no mitigation is required.

The loss of revenue from property tax associated with the operation of the four establishments subject to relocation as a result of the conversion of land from commercial use to transportation use from the Build Alternative 1 implementation are not considered substantial, but unavoidable. No mitigation could be identified.

The loss of sale tax revenue to the City of Fountain Valley in the event the four establishments decided to relocate out of the City is not considered substantial, but unavoidable. No mitigation could be identified.

Build Alternative 2: Add Two General Purpose Lanes

Minimization and mitigation measures would be the same as Build Alternative 1.

Build Alternative 3: Express Facility

Minimization and mitigation measures would be the same as Build Alternative 1.

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Chapter 8. List of Preparers and Contributors

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Appendix A

List of Potentially Affected Properties under Build Alternatives 1, 2, 3

List of Potentially Affected Properties Under Alternative 1 (Preliminary)

ImpactID	APN	Impact (sq/ft)	Land Use	House #	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
1	139-611-10	18.8	Single Family Residential	3334	WYOMING	CIR	COSTA MESA	92626	5837.12	0.32%
2	139-611-09	37.8	Single Family Residential	3336	WYOMING	CIR	COSTA MESA	92626	7512.46	0.50%
3	139-571-19	3.3	Single Family Residential	3338	NEVADA	AVE	COSTA MESA	92626	9053.65	0.04%
4	156-181-02	4775.8	Public	10844	ELLIS	AVE	FOUNTAIN VLY	92708	2109386.87	0.23%
5	156-181-01	200.6	Public	0			FOUNTAIN VALLEY		73561.40	0.27%
6	156-165-04	2691.1	Industrial	18480	PACIFIC	ST	FOUNTAIN VALLEY	92708	50377.26	5.34%
7		3143.5		0					93083.05	3.38%
8		26671.9		0					1085052.74	2.46%
9	156-175-01	12658.0	Public	18490	EUCLID	ST	FOUNTAIN VALLEY	92708	20367.52	62.15%
10	156-165-05	1846.3	Industrial	10950	VIRGINIA	CIR	FOUNTAIN VALLEY	92708	76136.59	2.43%
11	156-153-18	15.3		0					149696.32	0.01%
12	156-141-03	4.8	Single Family Residential	10499	APACHE RIVER	AVE	FOUNTAIN VALLEY	92708	6163.92	0.08%
13		143.3		0					226730.47	0.06%
14		1443.9		0					77258.03	1.87%
15	156-152-02	7.8	Public	18240	WARD	ST	FOUNTAIN VALLEY	92708	261269.77	0.00%
16	156-152-03	1376.0	Public	18240	WARD	ST	FOUNTAIN VALLEY	92708	59983.51	2.29%
17	156-162-01	228.3	Industrial	18203	MOUNT BALDY	CIR	FOUNTAIN VALLEY	92708	196956.43	0.12%
18	156-172-01	139.4	Industrial	18155	EUCLID	ST	FOUNTAIN VALLEY	92708	67376.35	0.21%
19	156-152-01	13.7	Public	18240	WARD	ST	FOUNTAIN VALLEY	92708	39027.22	0.04%
20	156-171-48	3448.0		0					26255.38	13.13%
21	156-164-04	72.4	Industrial	18125	EUCLID	ST	FOUNTAIN VALLEY	92708	33149.40	0.22%
22	156-095-73	212.1	Single Family Residential	0					66126.08	0.32%
23	156-151-03	946.5	Commercial	10540	TALBERT	AVE	FOUNTAIN VALLEY	92708	201526.40	0.47%
24	156-091-14	7502.9	Commercial	18120	BROOKHURST	ST	FOUNTAIN VALLEY	92708	387049.90	1.94%
25	169-283-07	114.3	Single Family Residential	10544	LA PERLA	AVE	FOUNTAIN VALLEY	92708	8457.27	1.35%
26	169-283-09	18.8	Single Family Residential	10568	LA PERLA	AVE	FOUNTAIN VALLEY	92708	7198.12	0.26%
27	169-283-08	76.2	Single Family Residential	10558	LA PERLA	AVE	FOUNTAIN VALLEY	92708	7186.36	1.06%
28	169-162-03	7.5	Commercial	17966	BROOKHURST	ST	FOUNTAIN VALLEY	92708	31881.37	0.02%
29	167-261-02	91.6	Commercial	17971	BROOKHURST	ST	FOUNTAIN VALLEY	92708	39551.68	0.23%
30	169-162-16	6.4	Commercial	10105	TALBERT	AVE	FOUNTAIN VALLEY	92708	56194.08	0.01%
31	169-334-01	25.4	Commercial	10115	TALBERT	AVE	FOUNTAIN VALLEY	92708	78935.37	0.03%
32	169-162-10	24.3	Commercial	0					2325.35	1.05%
33		101.8		0					68107.18	0.15%
34	169-162-06	14.6	Commercial	0			FOUNTAIN VALLEY		17294.31	0.08%
35	167-282-01	151.5	Commercial	17500	BUSHARD	ST	FOUNTAIN VALLEY	92708	141563.94	0.11%
36	169-131-17	70.7	Commercial	17570	BROOKHURST	ST	FOUNTAIN VALLEY	92708	346624.62	0.02%
37	169-131-09	8.3	Commercial	17520	BROOKHURST	ST	FOUNTAIN VALLEY	92708	25323.51	0.03%
38	167-241-03	3137.6		0					328887.77	0.95%
39	167-233-09	1.6	Commercial	17475	BROOKHURST	ST	FOUNTAIN VALLEY	92708	20887.79	0.01%
40	167-233-08	138.5	Commercial	9945	SLATER	AVE	FOUNTAIN VALLEY	92708	50665.01	0.27%
41	167-281-04	162.2	Multi-Family Residential	9531	SLATER	AVE	FOUNTAIN VALLEY	92708	152875.77	0.11%
42	167-161-17	176.5	Single Family Residential	17398	POPLAR	ST	FOUNTAIN VALLEY	92708	8692.79	2.03%
43	167-301-04	27.8	Commercial	17101	BUSHARD	ST	FOUNTAIN VALLEY	92708	124610.92	0.02%

List of Potentially Affected Properties Under Alternative 1 (Preliminary)

ImpactID	APN	Impact (sq/ft)	Land Use	House #	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
44	167-141-02	8.8	Commercial	9024	WARNER	AVE	FOUNTAIN VALLEY	92708	22011.18	0.04%
45	167-141-09	0.5	Commercial	17070	MAGNOLIA	ST	FOUNTAIN VALLEY	92708	96845.18	0.00%
46	167-301-03	2286.9	Commercial	9480	WARNER	AVE	FOUNTAIN VALLEY	92708	254479.93	0.90%
47	107-231-09	560.9	Commercial	8971	WARNER	AVE	HUNTINGTON BEACH	92647	22300.10	2.52%
48		0.3		0					5.68	4.66%
49	143-301-21	1514.9	Commercial	9025	WARNER	AVE	FOUNTAIN VALLEY	92708	22142.48	6.84%
50	143-301-38	1269.7	Commercial	9063	WARNER	AVE	FOUNTAIN VALLEY	92708	26601.18	4.77%
51	143-311-05	531.7	Commercial	9475	WARNER	AVE	FOUNTAIN VALLEY	92708	30095.49	1.77%
52	143-301-36	96.8	Commercial	9024	RECREATION	CIR	FOUNTAIN VALLEY	92708	15656.24	0.62%
53	107-231-10	564.8	Commercial	16931	MAGNOLIA	ST	HUNTINGTON BEACH	92647	139954.84	0.40%
54		11.4		0					117.83	9.64%
55	143-301-31	370.0	Commercial	9025	RECREATION	CIR	FOUNTAIN VALLEY	92708	38588.82	0.96%
56	143-294-02	48.3	Commercial	16800	MAGNOLIA	ST	FOUNTAIN VALLEY	92708	1845.22	2.62%
57	143-311-11	133.1	Multi-Family Residential	9440	CLOVER COURT	CIR	FOUNTAIN VALLEY	92708	286044.78	0.05%
58	107-231-17	2138.7	Multi-Family Residential	0					5728.54	37.33%
59	107-231-11	57.4	Public	16692	LANDAU	LN	HUNTINGTON BEACH	92647	102763.35	0.06%
60	107-232-05	591.8	Public	16585	MAGNOLIA	ST	WESTMINSTER	92683	88713.46	0.67%
61	143-251-55	0.5	Single Family Residential	9031	MAZA	CIR	FOUNTAIN VALLEY	92708	8688.40	0.01%
62	107-232-03	0.4	Multi-Family Residential	8882	HEIL	AVE	WESTMINSTER	92683	129134.99	0.00%
63	107-232-04	146.8	Commercial	16501	MAGNOLIA	ST	WESTMINSTER	92683	47488.28	0.31%
64		69.7		0					39932.74	0.17%
65	107-781-06	613.9	Commercial	16060	BEACH	BLVD	HUNTINGTON BEACH	92647	49415.39	1.24%
66	107-220-66	235.5	Multi-Family Residential	8400	EDINGER	AVE	HUNTINGTON BEACH	92647	535059.29	0.04%
67	107-836-55	34.1	Single Family Residential	8422	FURMAN	AVE	WESTMINSTER	92683	6052.16	0.56%
68	107-836-24	55.2	Single Family Residential	8412	FURMAN	AVE	WESTMINSTER	92683	6002.08	0.92%
69	107-836-25	1.4	Single Family Residential	8402	FURMAN	AVE	WESTMINSTER	92683	6002.15	0.02%
70	107-212-06	2403.2	Commercial	0			SILVERADO		99693.34	2.41%
71	142-073-17	37.0		0					8104.59	0.46%
72	142-342-23	226.6	Commercial	0					101546.52	0.22%
73	142-342-15	123.4	Commercial	7767	CENTER	AVE	HUNTINGTON BEACH	92647	140339.40	0.09%
74	142-341-09	0.4	Commercial	15559	BEACH	BLVD	WESTMINSTER	92683	19999.53	0.00%
75	142-341-08	5.8	Commercial	15557	BEACH	BLVD	WESTMINSTER	92683	19999.59	0.03%
76	142-341-07	11.2	Commercial	15541	BEACH	BLVD	WESTMINSTER	92683	17999.54	0.06%
77	142-341-06	22.2	Commercial	15501	BEACH	BLVD	WESTMINSTER	92683	20522.18	0.11%
78	142-471-01	273.6	Commercial	7500	MCFADDEN	AVE	HUNTINGTON BEACH	92647	31527.58	0.87%
79	142-472-02	344.5	Multi-Family Residential	15555	HUNTINGTON VILLAGE	LN	HUNTINGTON BEACH	92647	334433.38	0.10%
80	142-341-29	4.6	Single Family Residential	7736	SUGAR	DR	HUNTINGTON BEACH	92647	25958.26	0.02%
81	142-272-10	6.7	Single Family Residential	15461	SHASTA	LN	HUNTINGTON BEACH	92647	7333.09	0.09%
82	142-272-09	2.9	Single Family Residential	15451	CASCADE	LN	HUNTINGTON BEACH	92647	6205.34	0.05%
83	142-272-08	2.9	Single Family Residential	15441	CASCADE	LN	HUNTINGTON BEACH	92647	6287.02	0.05%
84	142-271-04	123.0	Industrial	7531	MCFADDEN	AVE	HUNTINGTON BEACH	92647	62761.78	0.20%
85	142-272-07	2.8	Single Family Residential	15431	CASCADE	LN	HUNTINGTON BEACH	92647	6282.25	0.04%
86	142-272-06	2.7	Single Family Residential	15421	CASCADE	LN	HUNTINGTON BEACH	92647	6277.39	0.04%
87	142-272-05	2.6	Single Family Residential	15411	CASCADE	LN	HUNTINGTON BEACH	92647	6272.46	0.04%

List of Potentially Affected Properties Under Alternative 1 (Preliminary)

ImpactID	APN	Impact (sq/ft)	Land Use	House #	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
88	142-272-04	2.6	Single Family Residential	15401	CASCADE	LN	HUNTINGTON BEACH	92647	6267.67	0.04%
89	142-272-03	2.5	Single Family Residential	15391	CASCADE	LN	HUNTINGTON BEACH	92647	6262.78	0.04%
90	142-311-34	295.4	Industrial	0					50782.75	0.58%
91	142-272-02	2.4	Single Family Residential	15381	CASCADE	LN	HUNTINGTON BEACH	92647	6257.91	0.04%
92	142-272-01	2.3	Single Family Residential	15371	CASCADE	LN	HUNTINGTON BEACH	92647	6221.08	0.04%
93	142-263-13	2.1	Single Family Residential	15361	CASCADE	LN	HUNTINGTON BEACH	92647	6032.82	0.04%
94	142-263-12	2.0	Single Family Residential	15351	CASCADE	LN	HUNTINGTON BEACH	92647	6000.49	0.03%
95	142-263-11	1.9	Single Family Residential	15341	CASCADE	LN	HUNTINGTON BEACH	92647	6000.48	0.03%
96	142-263-10	1.9	Single Family Residential	15331	CASCADE	LN	HUNTINGTON BEACH	92647	6006.30	0.03%
97	142-263-09	0.7	Single Family Residential	15321	CASCADE	LN	HUNTINGTON BEACH	92647	7257.24	0.01%
98	142-311-01	962.9		0					41495.15	2.32%
99	142-421-13	11.8	Industrial	15172	GOLDENWEST	CIR	WESTMINSTER	92683	231966.69	0.01%
100	142-421-09	5.4	Industrial	15192	GOLDENWEST	CIR	WESTMINSTER	92683	53375.75	0.01%
101	145-231-16	158.7	Commercial	15001	GOLDENWEST	ST	HUNTINGTON BEACH	92647	22246.52	0.71%
102	142-382-13	4626.6	Commercial	15042	GOLDENWEST	ST	WESTMINSTER	92683	156494.18	2.96%
103		2431.8		0					172610.17	1.41%
104	142-012-02	69.5	Industrial	7300	BOLSA	AVE	WESTMINSTER	92683	55056.31	0.13%
105		13.2		0					5008.32	0.26%
106	195-373-26	34.2	Public	0				92683	44673.39	0.08%
107	096-522-04	1554.8	Commercial	0			WESTMINSTER		4989.13	31.16%
108	195-373-08	379.3	Commercial	6951	BOLSA	AVE	WESTMINSTER	92683	33057.84	1.15%
109	195-373-22	1120.0	Commercial	0			WESTMINSTER		27174.11	4.12%
110	096-522-02	1962.2	Commercial	14980	GOLDENWEST	ST	WESTMINSTER	92683	50042.61	3.92%
111	096-522-05	444.0	Public	0					3216.10	13.81%
112	096-522-06	1443.7	Commercial	0					2584.00	55.87%
113	096-190-66	31.4		0					531094.50	0.01%
114	195-373-09	15740.7	Commercial	100	WESTMINSTER	MALL	WESTMINSTER	92683	619339.82	2.54%
115		560.4		0					6333.14	8.85%
116	096-511-11	9.4	Public	0				92683	9670.46	0.10%
117	195-353-01	295.8		0					65540.07	0.45%
118	096-183-08	0.9	Industrial	14726	GOLDENWEST	ST	WESTMINSTER	92683	40947.22	0.00%
119	195-352-10	5.8	Single Family Residential	14701	GOLDENWEST	ST	WESTMINSTER	92683	7208.30	0.08%
120	195-352-09	13.4	Single Family Residential	14691	GOLDENWEST	ST	WESTMINSTER	92683	7200.21	0.19%
121	195-352-08	0.8	Single Family Residential	14681	GOLDENWEST	ST	WESTMINSTER	92683	7200.42	0.01%
122	195-151-34	8.7	Commercial	6452	INDUSTRY	WAY	WESTMINSTER	92683	26185.26	0.03%
123	195-461-01	127.1	Industrial	14528	EDWARDS	ST	WESTMINSTER	92683	146525.09	0.09%
124	195-372-02	552.8	Commercial	14490	EDWARDS	ST	WESTMINSTER	92683	69429.79	0.80%
125	195-371-05	2619.9	Public	6502	HOMER	ST	WESTMINSTER	92683	197261.33	1.33%
126	195-371-04	530.8	Public	0				92683	6421.23	8.27%
127		0.5		0					95472.91	0.00%
128	195-241-09	5.3	Commercial	14022	SPRINGDALE	ST	WESTMINSTER	92683	46051.04	0.01%
129	195-262-01	86.1	Commercial	6292	WESTMINSTER	BLVD	WESTMINSTER	92683	15970.91	0.54%
130	195-141-01	884.3	Commercial	5992	WESTMINSTER	BLVD	WESTMINSTER	92683	21199.96	4.17%

List of Potentially Affected Properties Under Alternative 1 (Preliminary)

ImpactID	APN	Impact (sq/ft)	Land Use	House #	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
131	195-141-04	518.0	Commercial	5952	WESTMINSTER	BLVD	WESTMINSTER	92683	73719.38	0.70%
132	203-291-14	625.4	Commercial	5981	WESTMINSTER	BLVD	WESTMINSTER	92683	15396.37	4.06%
133	203-563-04	473.8	Commercial	6311	WESTMINSTER	BLVD	WESTMINSTER	92683	21945.64	2.16%
134	203-291-13	434.6	Commercial	0					10353.75	4.20%
135	203-271-16	4.2	Single Family Residential	13721	SPRINGDALE	ST	WESTMINSTER	92683	8024.27	0.05%
136	203-321-02	96.1	Single Family Residential	13711	SIOUX	RD	WESTMINSTER	92683	6563.64	1.46%
137	203-322-05	7.6	Single Family Residential	13691	SIOUX	RD	WESTMINSTER	92683	7361.09	0.10%
138	203-261-13	3.3	Single Family Residential	13692	SPRINGDALE	ST	WESTMINSTER	92683	10161.60	0.03%
139	095-020-19	10082.2	Public	0				90740	53428606.04	0.02%
140	217-121-39	0.6	Single Family Residential	3550	VIOLET	ST	SEAL BEACH	90740	6720.82	0.01%
141	086-011-13	913.4	Public	0			SEAL BEACH		5416.07	16.86%
142	130-014-06	4635.1		0					29894.02	15.51%
143	086-011-54	555.5	Public	0					742.26	74.84%
144	086-011-19	1266.0	Public	0			SEAL BEACH		1642.15	77.10%
145	217-121-15	1.6	Single Family Residential	3560	WISTERIA	ST	SEAL BEACH	90740	6523.80	0.02%
146	086-483-22	14069.8	Public	0				90720	66706.07	21.09%
147	217-371-07	145.1	Commercial	3850	LAMPSON	AVE	SEAL BEACH	90740	251638.10	0.06%
148	156-094-01	1095.6	Commercial	10480	TALBERT	AVE	FOUNTAIN VALLEY	92708	159062.98	0.69%
149	203-313-02	26836.8		0					61734.56	43.47%
150	143-301-39	182688.7	Commercial	9065	WARNER	AVE	FOUNTAIN VALLEY	92708	183502.38	99.56%
151	143-301-33	58468.1	Commercial	9105	RECREATION	CIR	FOUNTAIN VALLEY	92708	58468.13	100.00%
152	143-301-34	37782.4	Commercial	9125	RECREATION	CIR	FOUNTAIN VALLEY	92708	37782.40	100.00%
153	143-301-37	6513.9	Public	0					44060.28	14.78%
154	143-294-01	39759.9	Commercial	16800	MAGNOLIA	ST	FOUNTAIN VALLEY	92708	142225.85	27.96%
155		117.8		0					117.83	100.00%
Totals		510998.4							67317914.99	0.76%

List of Potentially Affected Properties Under Alternative 2 (Preliminary)

ImpactID	APN	Impact (sq/ft)	Land Use	House #	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
1	139-611-10	18.8	Single Family Residential	3334	WYOMING	CIR	COSTA MESA	92626	5837.12	0.32%
2	139-611-09	37.8	Single Family Residential	3336	WYOMING	CIR	COSTA MESA	92626	7512.46	0.50%
3	139-571-19	3.3	Single Family Residential	3338	NEVADA	AVE	COSTA MESA	92626	9053.65	0.04%
4	156-181-02	4781.6	Public	10844	ELLIS	AVE	FOUNTAIN VLY	92708	2109386.87	0.23%
5	156-181-01	200.7	Public	0			FOUNTAIN VALLEY		73561.40	0.27%
6	156-165-04	2687.6	Industrial	18480	PACIFIC	ST	FOUNTAIN VALLEY	92708	50377.26	5.33%
7		3141.5		0					93083.05	3.37%
8		26674.3		0					1085052.74	2.46%
9	156-175-01	12657.7	Public	18490	EUCLID	ST	FOUNTAIN VALLEY	92708	20367.52	62.15%
10	156-165-05	1846.2	Industrial	10950	VIRGINIA	CIR	FOUNTAIN VALLEY	92708	76136.59	2.42%
11	156-153-18	15.3		0					149696.32	0.01%
12	156-141-03	4.8	Single Family Residential	10499	APACHE RIVER	AVE	FOUNTAIN VALLEY	92708	6163.92	0.08%
13		141.0		0					226730.47	0.06%
14		1443.9		0					77258.03	1.87%
15	156-152-03	1562.4	Public	18240	WARD	ST	FOUNTAIN VALLEY	92708	59983.51	2.60%
16	156-162-01	228.3	Industrial	18203	MOUNT BALDY	CIR	FOUNTAIN VALLEY	92708	196956.43	0.12%
17	156-172-01	138.5	Industrial	18155	EUCLID	ST	FOUNTAIN VALLEY	92708	67376.35	0.21%
18	156-171-48	4.7		0					26255.38	0.02%
19	156-164-04	68.1	Industrial	18125	EUCLID	ST	FOUNTAIN VALLEY	92708	33149.40	0.21%
20	156-095-73	212.1	Single Family Residential	0					66126.08	0.32%
21	156-151-03	958.2	Commercial	10540	TALBERT	AVE	FOUNTAIN VALLEY	92708	201526.40	0.48%
22	156-091-14	7684.1	Commercial	18120	BROOKHURST	ST	FOUNTAIN VALLEY	92708	387049.90	1.99%
23	157-241-06	344.8	Commercial	18025	BROOKHURST	ST	FOUNTAIN VALLEY	92708	13987.25	2.47%
24	169-283-07	114.3	Single Family Residential	10544	LA PERLA	AVE	FOUNTAIN VALLEY	92708	8457.27	1.35%
25	169-283-09	18.8	Single Family Residential	10568	LA PERLA	AVE	FOUNTAIN VALLEY	92708	7198.12	0.26%
26	169-283-08	76.2	Single Family Residential	10558	LA PERLA	AVE	FOUNTAIN VALLEY	92708	7186.36	1.06%
27	169-162-03	7.5	Commercial	17966	BROOKHURST	ST	FOUNTAIN VALLEY	92708	31881.37	0.02%
28	167-261-02	91.6	Commercial	17971	BROOKHURST	ST	FOUNTAIN VALLEY	92708	39551.68	0.23%
29	169-162-16	6.4	Commercial	10105	TALBERT	AVE	FOUNTAIN VALLEY	92708	56194.08	0.01%
30	169-334-01	25.5	Commercial	10115	TALBERT	AVE	FOUNTAIN VALLEY	92708	78935.37	0.03%
31	169-162-10	24.3	Commercial	0					2325.35	1.05%
32		101.8		0					68107.18	0.15%
33	169-162-06	14.6	Commercial	0			FOUNTAIN VALLEY		17294.31	0.08%
34	167-282-01	151.5	Commercial	17500	BUSHARD	ST	FOUNTAIN VALLEY	92708	141563.94	0.11%
35	169-131-17	70.7	Commercial	17570	BROOKHURST	ST	FOUNTAIN VALLEY	92708	346624.62	0.02%
36	169-131-09	8.3	Commercial	17520	BROOKHURST	ST	FOUNTAIN VALLEY	92708	25323.51	0.03%
37	167-241-03	21.4		0					328887.77	0.01%
38	167-233-09	3.6	Commercial	17475	BROOKHURST	ST	FOUNTAIN VALLEY	92708	20887.79	0.02%
39	167-233-08	138.5	Commercial	9945	SLATER	AVE	FOUNTAIN VALLEY	92708	50665.01	0.27%
40	167-281-04	162.2	Multi-Family Residential	9531	SLATER	AVE	FOUNTAIN VALLEY	92708	152875.77	0.11%
41	167-161-17	176.5	Single Family Residential	17398	POPLAR	ST	FOUNTAIN VALLEY	92708	8692.79	2.03%
42		81.6		0					9940.19	0.82%
43		121.7		0					10118.86	1.20%
44	167-301-04	257.1	Commercial	17101	BUSHARD	ST	FOUNTAIN VALLEY	92708	124610.92	0.21%

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45	167-141-02	8.8	Commercial	9024	WARNER	AVE	FOUNTAIN VALLEY	92708	22011.18	0.04%
46	167-141-09	0.5	Commercial	17070	MAGNOLIA	ST	FOUNTAIN VALLEY	92708	96845.18	0.00%
47	167-301-03	3339.8	Commercial	9480	WARNER	AVE	FOUNTAIN VALLEY	92708	254479.93	1.31%
48	107-231-09	560.9	Commercial	8971	WARNER	AVE	HUNTINGTON BEACH	92647	22300.10	2.52%
49		0.2		0					5.68	4.00%
50	143-301-21	1397.3	Commercial	9025	WARNER	AVE	FOUNTAIN VALLEY	92708	22142.48	6.31%
51	143-301-38	1101.3	Commercial	9063	WARNER	AVE	FOUNTAIN VALLEY	92708	26601.18	4.14%
52	143-311-05	531.7	Commercial	9475	WARNER	AVE	FOUNTAIN VALLEY	92708	30095.49	1.77%
53	143-301-36	96.8	Commercial	9024	RECREATION	CIR	FOUNTAIN VALLEY	92708	15656.24	0.62%
54	107-231-10	564.8	Commercial	16931	MAGNOLIA	ST	HUNTINGTON BEACH	92647	139954.84	0.40%
55	143-301-39	182688.7	Commercial	9065	WARNER	AVE	FOUNTAIN VALLEY	92708	183502.38	99.56%
56		117.8		0					117.83	100.00%
57	143-301-31	370.0	Commercial	9025	RECREATION	CIR	FOUNTAIN VALLEY	92708	38588.82	0.96%
58	143-294-02	48.3	Commercial	16800	MAGNOLIA	ST	FOUNTAIN VALLEY	92708	1845.22	2.62%
59	143-301-33	58468.1	Commercial	9105	RECREATION	CIR	FOUNTAIN VALLEY	92708	58468.13	100.00%
60	143-301-34	37782.4	Commercial	9125	RECREATION	CIR	FOUNTAIN VALLEY	92708	37782.40	100.00%
61	143-311-11	133.1	Multi-Family Residential	9440	CLOVER COURT	CIR	FOUNTAIN VALLEY	92708	286044.78	0.05%
62	107-231-17	2140.3	Multi-Family Residential	0					5728.54	37.36%
63	143-301-37	6513.9	Public	0					44060.28	14.78%
64	143-294-01	39759.9	Commercial	16800	MAGNOLIA	ST	FOUNTAIN VALLEY	92708	142225.85	27.96%
65	107-231-11	1210.2	Public	16692	LANDAU	LN	HUNTINGTON BEACH	92647	102763.35	1.18%
66	107-232-05	695.0	Public	16585	MAGNOLIA	ST	WESTMINSTER	92683	88713.46	0.78%
67	107-651-23	15.9	Single Family Residential	16522	LANDAU	LN	HUNTINGTON BEACH	92647	8373.96	0.19%
68	143-251-55	0.5	Single Family Residential	9031	MAZA	CIR	FOUNTAIN VALLEY	92708	8688.40	0.01%
69	107-232-03	0.4	Multi-Family Residential	8882	HEIL	AVE	WESTMINSTER	92683	129134.99	0.00%
70	107-232-04	146.8	Commercial	16501	MAGNOLIA	ST	WESTMINSTER	92683	47488.28	0.31%
71		0.6		0					370565.10	0.00%
72	107-781-06	614.1	Commercial	16060	BEACH	BLVD	HUNTINGTON BEACH	92647	49415.39	1.24%
73	107-220-66	542.4	Multi-Family Residential	8400	EDINGER	AVE	HUNTINGTON BEACH	92647	535059.29	0.10%
74	107-836-55	34.1	Single Family Residential	8422	FURMAN	AVE	WESTMINSTER	92683	6052.16	0.56%
75	107-836-24	55.2	Single Family Residential	8412	FURMAN	AVE	WESTMINSTER	92683	6002.08	0.92%
76	107-836-25	1.4	Single Family Residential	8402	FURMAN	AVE	WESTMINSTER	92683	6002.15	0.02%
77	107-212-06	2403.2	Commercial	0			SILVERADO		99693.34	2.41%
78	142-073-17	37.0		0					8104.59	0.46%
79	142-342-23	620.7	Commercial	0					101546.52	0.61%
80	142-342-15	319.7	Commercial	7767	CENTER	AVE	HUNTINGTON BEACH	92647	140339.40	0.23%
81	142-341-09	0.4	Commercial	15559	BEACH	BLVD	WESTMINSTER	92683	19999.53	0.00%
82	142-342-14	18.2	Commercial	7677	CENTER	AVE	HUNTINGTON BEACH	92647	43760.35	0.04%
83	142-341-08	5.8	Commercial	15557	BEACH	BLVD	WESTMINSTER	92683	19999.59	0.03%
84	142-341-07	11.2	Commercial	15541	BEACH	BLVD	WESTMINSTER	92683	17999.54	0.06%
85	142-341-06	22.2	Commercial	15501	BEACH	BLVD	WESTMINSTER	92683	20522.18	0.11%
86	142-471-01	273.6	Commercial	7500	MCFADDEN	AVE	HUNTINGTON BEACH	92647	31527.58	0.87%
87	142-472-02	341.0	Multi-Family Residential	15555	HUNTINGTON VILLAGE	LN	HUNTINGTON BEACH	92647	334433.38	0.10%
88	142-341-29	7.4	Single Family Residential	7736	SUGAR	DR	HUNTINGTON BEACH	92647	25958.26	0.03%

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ImpactID	APN	Impact (sq/ft)	Land Use	House #	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
89	142-272-10	6.6	Single Family Residential	15461	SHASTA	LN	HUNTINGTON BEACH	92647	7333.09	0.09%
90	142-272-09	2.9	Single Family Residential	15451	CASCADE	LN	HUNTINGTON BEACH	92647	6205.34	0.05%
91	142-272-08	2.9	Single Family Residential	15441	CASCADE	LN	HUNTINGTON BEACH	92647	6287.02	0.05%
92	142-271-04	136.6	Industrial	7531	MCFADDEN	AVE	HUNTINGTON BEACH	92647	62761.78	0.22%
93	142-272-07	2.8	Single Family Residential	15431	CASCADE	LN	HUNTINGTON BEACH	92647	6282.25	0.04%
94	142-272-06	2.7	Single Family Residential	15421	CASCADE	LN	HUNTINGTON BEACH	92647	6277.39	0.04%
95	142-271-05	0.6	Industrial	7501	MCFADDEN	AVE	HUNTINGTON BEACH	92647	32048.63	0.00%
96	142-272-05	2.6	Single Family Residential	15411	CASCADE	LN	HUNTINGTON BEACH	92647	6272.46	0.04%
97	142-272-04	2.6	Single Family Residential	15401	CASCADE	LN	HUNTINGTON BEACH	92647	6267.67	0.04%
98	142-272-03	2.5	Single Family Residential	15391	CASCADE	LN	HUNTINGTON BEACH	92647	6262.78	0.04%
99	142-311-34	788.6	Industrial	0					50782.75	1.55%
100	142-272-02	2.4	Single Family Residential	15381	CASCADE	LN	HUNTINGTON BEACH	92647	6257.91	0.04%
101	142-272-01	2.3	Single Family Residential	15371	CASCADE	LN	HUNTINGTON BEACH	92647	6221.08	0.04%
102	142-263-13	2.1	Single Family Residential	15361	CASCADE	LN	HUNTINGTON BEACH	92647	6032.82	0.04%
103	142-263-12	2.0	Single Family Residential	15351	CASCADE	LN	HUNTINGTON BEACH	92647	6000.49	0.03%
104	142-263-11	1.9	Single Family Residential	15341	CASCADE	LN	HUNTINGTON BEACH	92647	6000.48	0.03%
105	142-263-10	1.9	Single Family Residential	15331	CASCADE	LN	HUNTINGTON BEACH	92647	6006.30	0.03%
106	142-263-09	0.7	Single Family Residential	15321	CASCADE	LN	HUNTINGTON BEACH	92647	7257.24	0.01%
107	142-311-01	307.6		0					41495.15	0.74%
108	142-421-13	1.7	Industrial	15172	GOLDENWEST	CIR	WESTMINSTER	92683	231966.69	0.00%
109	145-231-16	156.5	Commercial	15001	GOLDENWEST	ST	HUNTINGTON BEACH	92647	22246.52	0.70%
110	142-382-13	4625.6	Commercial	15042	GOLDENWEST	ST	WESTMINSTER	92683	156494.18	2.96%
111		716.7		0					172610.17	0.42%
112	142-012-02	69.5	Industrial	7300	BOLSA	AVE	WESTMINSTER	92683	55056.31	0.13%
113		13.2		0					5008.32	0.26%
114	195-373-26	1.5	Public	0				92683	44673.39	0.00%
115	096-522-04	1553.4	Commercial	0			WESTMINSTER		4989.13	31.14%
116	195-373-08	20.5	Commercial	6951	BOLSA	AVE	WESTMINSTER	92683	33057.84	0.06%
117	195-373-22	1118.5	Commercial	0			WESTMINSTER		27174.11	4.12%
118	096-522-02	1961.7	Commercial	14980	GOLDENWEST	ST	WESTMINSTER	92683	50042.61	3.92%
119	096-522-05	445.7	Public	0					3216.10	13.86%
120	096-522-06	1443.7	Commercial	0					2584.00	55.87%
121	096-190-66	31.4		0					531094.50	0.01%
122	195-373-09	55.1	Commercial	100	WESTMINSTER	MALL	WESTMINSTER	92683	619339.82	0.01%
123		560.4		0					6333.14	8.85%
124	195-353-01	295.9		0					65540.07	0.45%
125	096-183-08	0.9	Industrial	14726	GOLDENWEST	ST	WESTMINSTER	92683	40947.22	0.00%
126	195-352-10	5.8	Single Family Residential	14701	GOLDENWEST	ST	WESTMINSTER	92683	7208.30	0.08%
127	195-352-09	13.4	Single Family Residential	14691	GOLDENWEST	ST	WESTMINSTER	92683	7200.21	0.19%
128	195-352-08	0.8	Single Family Residential	14681	GOLDENWEST	ST	WESTMINSTER	92683	7200.42	0.01%
129	195-151-34	8.7	Commercial	6452	INDUSTRY	WAY	WESTMINSTER	92683	26185.26	0.03%
130	195-461-01	120.4	Industrial	14528	EDWARDS	ST	WESTMINSTER	92683	146525.09	0.08%
131	195-372-02	553.6	Commercial	14490	EDWARDS	ST	WESTMINSTER	92683	69429.79	0.80%
132	195-371-05	2619.9	Public	6502	HOMER	ST	WESTMINSTER	92683	197261.33	1.33%

List of Potentially Affected Properties Under Alternative 2 (Preliminary)

ImpactID	APN	Impact (sq/ft)	Land Use	House #	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
133	195-371-04	530.8	Public	0				92683	6421.23	8.27%
134	195-253-07	49.4	Single Family Residential	6211	MAHOGANY	AVE	WESTMINSTER	92683	14769.88	0.33%
135		4152.3		0					95472.91	4.35%
136	195-243-06	7.8	Multi-Family Residential	14082	ASH	ST	WESTMINSTER	92683	9578.54	0.08%
137	195-243-05	7.1	Multi-Family Residential	14062	ASH	ST	WESTMINSTER	92683	9545.79	0.07%
138	195-241-09	5.3	Commercial	14022	SPRINGDALE	ST	WESTMINSTER	92683	46051.04	0.01%
139	195-262-01	86.2	Commercial	6292	WESTMINSTER	BLVD	WESTMINSTER	92683	15970.91	0.54%
140	195-141-01	884.3	Commercial	5992	WESTMINSTER	BLVD	WESTMINSTER	92683	21199.96	4.17%
141	195-141-04	518.0	Commercial	5952	WESTMINSTER	BLVD	WESTMINSTER	92683	73719.38	0.70%
142	203-291-14	625.4	Commercial	5981	WESTMINSTER	BLVD	WESTMINSTER	92683	15396.37	4.06%
143	203-563-04	473.8	Commercial	6311	WESTMINSTER	BLVD	WESTMINSTER	92683	21945.64	2.16%
144	203-291-13	434.6	Commercial	0					10353.75	4.20%
145	203-291-07	0.3	Single Family Residential	0			WESTMINSTER		8431.92	0.00%
146		117.9		0					156948.43	0.08%
147	203-271-16	4.2	Single Family Residential	13721	SPRINGDALE	ST	WESTMINSTER	92683	8024.27	0.05%
148	203-321-02	96.1	Single Family Residential	13711	SIOUX	RD	WESTMINSTER	92683	6563.64	1.46%
149	203-322-05	7.6	Single Family Residential	13691	SIOUX	RD	WESTMINSTER	92683	7361.09	0.10%
150	203-282-06	1.9	Single Family Residential	5821	VALLECITO	DR	WESTMINSTER	92683	7242.01	0.03%
151	203-282-05	5.9	Single Family Residential	5811	VALLECITO	DR	WESTMINSTER	92683	7568.81	0.08%
152	203-261-13	3.3	Single Family Residential	13692	SPRINGDALE	ST	WESTMINSTER	92683	10161.60	0.03%
153	203-282-04	3.3	Single Family Residential	5801	VALLECITO	DR	WESTMINSTER	92683	7208.95	0.05%
154	203-282-03	1.1	Single Family Residential	5795	VALLECITO	DR	WESTMINSTER	92683	7208.72	0.02%
155	095-020-19	59585.7	Public	0				90740	53428606.04	0.11%
156	217-144-19	106.3	Public	0					65581.09	0.16%
157	217-121-39	0.6	Single Family Residential	3550	VIOLET	ST	SEAL BEACH	90740	6720.82	0.01%
158	086-011-13	933.1	Public	0			SEAL BEACH		5416.07	17.23%
159	130-014-06	20535.7		0					29894.02	68.70%
160	086-011-54	560.1	Public	0					742.26	75.46%
161	086-011-19	1263.1	Public	0			SEAL BEACH		1642.15	76.92%
162	217-121-15	1.6	Single Family Residential	3560	WISTERIA	ST	SEAL BEACH	90740	6523.80	0.02%
163	086-483-22	14002.7	Public	0				90720	66706.07	20.99%
164	217-371-07	1102.4	Commercial	3850	LAMPSON	AVE	SEAL BEACH	90740	251638.10	0.44%
165	086-451-14	67.2	Public	0				90720	44107.61	0.15%
166	086-444-23	598.0	Single Family Residential	12691	MARTHA ANN	DR	LOS ALAMITOS	90720	12807.01	4.67%
167	156-094-01	1096.7	Commercial	10480	TALBERT	AVE	FOUNTAIN VALLEY	92708	159062.98	0.69%
168	195-373-17	58.9	Commercial	300	WESTMINSTER	MALL	WESTMINSTER	92683	1333468.42	0.00%
169	195-373-25	848.2	Commercial	14600	EDWARDS	ST	WESTMINSTER	92683	63417.15	1.34%
170	195-373-27	0.8	Commercial	0					42031.85	0.00%
171	195-271-29	25.6	Multi-Family Residential	14181	EDWARDS	ST	WESTMINSTER	92683	228020.72	0.01%
172	195-291-03	2.2	Single Family Residential	0					4912.39	0.05%
173	203-313-02	29094.1		0					61734.56	47.13%
565097.5									69426164.86	0.81%

List of Potentially Affected Properties Under Alternative 3 (Preliminary)

Impact ID	APN	Impact (sq/ft)	Land Use	House #	Street Direction	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
1	412-483-01	6938.9	Public	0				SANTA ANA		13542.19	51.24%
2	412-123-01	42827.2		0						44025.89	97.28%
3	412-113-02	13199.4		0						81012.76	16.29%
4	139-031-75	1.6	Commercial	1507	S	COAST	DR	COSTA MESA	92626	42275.90	0.00%
5	140-041-74	17089.2	Public	0				COSTA MESA		271412.08	6.30%
6	139-031-76	1029.3	Commercial	1515	S	COAST	DR	COSTA MESA	92626	107529.98	0.96%
7	139-031-41	1328.8	Commercial	3300		HYLAND	AVE	COSTA MESA	92626	653392.84	0.20%
8	156-181-02	4781.6	Public	10844		ELLIS	AVE	FOUNTAIN VLY	92708	2109386.87	0.23%
9	156-181-01	200.7	Public	0				FOUNTAIN VALLEY		73561.40	0.27%
10	156-165-04	2687.6	Industrial	18480		PACIFIC	ST	FOUNTAIN VALLEY	92708	50377.26	5.33%
11		3141.5		0						93083.05	3.37%
12		26667.3		0						1085052.74	2.46%
13	156-175-01	12657.6	Public	18490		EUCLID	ST	FOUNTAIN VALLEY	92708	20367.52	62.15%
14		4077.2		0						562131.70	0.73%
15	139-031-62	16395.3	Industrial	1683		SUNFLOWER	AVE	COSTA MESA	92626	480828.11	3.41%
16	139-651-14	3340.2	Industrial	1683		SUNFLOWER	AVE	COSTA MESA	92626	203650.26	1.64%
17		13.4		0						956.55	1.40%
18	156-165-05	1846.2	Industrial	10950		VIRGINIA	CIR	FOUNTAIN VALLEY	92708	76136.59	2.42%
19	156-165-08	601.5	Industrial	18370		PACIFIC	ST	FOUNTAIN VALLEY	92708	80748.37	0.74%
20	139-661-25	1441.8	Industrial	0				COSTA MESA		70654.79	2.04%
21		6.6		0						23409.55	0.03%
22	156-153-18	15.3		0						149696.32	0.01%
23	156-141-03	4.8	Single Family Resident	10499		APACHE RIVER	AVE	FOUNTAIN VALLEY	92708	6163.92	0.08%
24		141.0		0						226730.47	0.06%
25	156-153-05	816.2	Public	0						4323.43	18.88%
26	139-661-24	1321.7	Industrial	0				COSTA MESA		344096.08	0.38%
27		1.7		0						15.57	11.16%
28		2401.8		0						77258.03	3.11%
29	156-152-02	6886.7	Public	18240		WARD	ST	FOUNTAIN VALLEY	92708	261269.77	2.64%
30	156-152-03	1562.4	Public	18240		WARD	ST	FOUNTAIN VALLEY	92708	59983.51	2.60%
31	156-162-01	228.3	Industrial	18203		MOUNT BALDY	CIR	FOUNTAIN VALLEY	92708	196956.43	0.12%
32	156-172-01	138.5	Industrial	18155		EUCLID	ST	FOUNTAIN VALLEY	92708	67376.35	0.21%
33	156-152-01	3676.1	Public	18240		WARD	ST	FOUNTAIN VALLEY	92708	39027.22	9.42%
34	156-171-48	4.7		0						26255.38	0.02%
35	156-164-04	68.1	Industrial	18125		EUCLID	ST	FOUNTAIN VALLEY	92708	33149.40	0.21%
36	156-095-73	212.1	Single Family Resident	0						66126.08	0.32%
37	156-213-40	1288.6	Single Family Resident	0				FOUNTAIN VALLEY		19832.99	6.50%
38	156-212-43	542.2	Single Family Resident	0				FOUNTAIN VALLEY		27596.75	1.96%
39	156-151-03	958.2	Commercial	10540		TALBERT	AVE	FOUNTAIN VALLEY	92708	201526.40	0.48%
40	156-091-14	7684.1	Commercial	18120		BROOKHURST	ST	FOUNTAIN VALLEY	92708	387049.90	1.99%
41	157-241-06	344.8	Commercial	18025		BROOKHURST	ST	FOUNTAIN VALLEY	92708	13987.25	2.47%
42	169-283-07	114.3	Single Family Resident	10544		LA PERLA	AVE	FOUNTAIN VALLEY	92708	8457.27	1.35%
43	169-283-09	18.8	Single Family Resident	10568		LA PERLA	AVE	FOUNTAIN VALLEY	92708	7198.12	0.26%

List of Potentially Affected Properties Under Alternative 3 (Preliminary)

Impact ID	APN	Impact (sq/ft)	Land Use	House #	Street Direction	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
44	169-283-08	76.2	Single Family Resident	10558		LA PERLA	AVE	FOUNTAIN VALLEY	92708	7186.36	1.06%
45	169-162-03	7.5	Commercial	17966		BROOKHURST	ST	FOUNTAIN VALLEY	92708	31881.37	0.02%
46	167-261-02	91.6	Commercial	17971		BROOKHURST	ST	FOUNTAIN VALLEY	92708	39551.68	0.23%
47	169-162-16	6.4	Commercial	10105		TALBERT	AVE	FOUNTAIN VALLEY	92708	56194.08	0.01%
48	169-334-01	25.5	Commercial	10115		TALBERT	AVE	FOUNTAIN VALLEY	92708	78935.37	0.03%
49	169-162-10	24.3	Commercial	0						2325.35	1.05%
50		101.8		0						68107.18	0.15%
51	169-162-06	14.6	Commercial	0				FOUNTAIN VALLEY		17294.31	0.08%
52	167-282-01	151.5	Commercial	17500		BUSHARD	ST	FOUNTAIN VALLEY	92708	141563.94	0.11%
53	169-131-17	70.7	Commercial	17570		BROOKHURST	ST	FOUNTAIN VALLEY	92708	346624.62	0.02%
54	169-131-09	8.3	Commercial	17520		BROOKHURST	ST	FOUNTAIN VALLEY	92708	25323.51	0.03%
55	167-241-03	21.4		0						328887.77	0.01%
56	167-233-09	3.6	Commercial	17475		BROOKHURST	ST	FOUNTAIN VALLEY	92708	20887.79	0.02%
57	167-233-08	138.5	Commercial	9945		SLATER	AVE	FOUNTAIN VALLEY	92708	50665.01	0.27%
58	167-281-04	162.2	Multi-Family Resident	9531		SLATER	AVE	FOUNTAIN VALLEY	92708	152875.77	0.11%
59	167-161-17	176.5	Single Family Resident	17398		POPLAR	ST	FOUNTAIN VALLEY	92708	8692.79	2.03%
60		81.6		0						9940.19	0.82%
61		121.7		0						10118.86	1.20%
62	167-301-04	257.1	Commercial	17101		BUSHARD	ST	FOUNTAIN VALLEY	92708	124610.92	0.21%
63	167-141-02	8.8	Commercial	9024		WARNER	AVE	FOUNTAIN VALLEY	92708	22011.18	0.04%
64	167-141-09	0.5	Commercial	17070		MAGNOLIA	ST	FOUNTAIN VALLEY	92708	96845.18	0.00%
65	167-301-03	3339.8	Commercial	9480		WARNER	AVE	FOUNTAIN VALLEY	92708	254479.93	1.31%
66	107-231-09	560.9	Commercial	8971		WARNER	AVE	HUNTINGTON BEACH	92647	22300.10	2.52%
67		0.2		0						5.68	4.00%
68	143-301-21	1397.3	Commercial	9025		WARNER	AVE	FOUNTAIN VALLEY	92708	22142.48	6.31%
69	143-301-38	1101.3	Commercial	9063		WARNER	AVE	FOUNTAIN VALLEY	92708	26601.18	4.14%
70	143-311-05	531.7	Commercial	9475		WARNER	AVE	FOUNTAIN VALLEY	92708	30095.49	1.77%
71	143-301-36	96.8	Commercial	9024		RECREATION	CIR	FOUNTAIN VALLEY	92708	15656.24	0.62%
72	107-231-10	564.8	Commercial	16931		MAGNOLIA	ST	HUNTINGTON BEACH	92647	139954.84	0.40%
73	143-301-39	182688.7	Commercial	9065		WARNER	AVE	FOUNTAIN VALLEY	92708	183502.38	99.56%
74		117.8		0						117.83	100.00%
75	143-301-31	370.0	Commercial	9025		RECREATION	CIR	FOUNTAIN VALLEY	92708	38588.82	0.96%
76	143-294-02	48.3	Commercial	16800		MAGNOLIA	ST	FOUNTAIN VALLEY	92708	1845.22	2.62%
77	143-301-33	58468.1	Commercial	9105		RECREATION	CIR	FOUNTAIN VALLEY	92708	58468.13	100.00%
78	143-301-34	37782.4	Commercial	9125		RECREATION	CIR	FOUNTAIN VALLEY	92708	37782.40	100.00%
79	143-311-11	133.1	Multi-Family Resident	9440		CLOVER COURT	CIR	FOUNTAIN VALLEY	92708	286044.78	0.05%
80	107-231-17	2140.3	Multi-Family Resident	0						5728.54	37.36%
81	143-301-37	6513.9	Public	0						44060.28	14.78%
82	143-294-01	39759.9	Commercial	16800		MAGNOLIA	ST	FOUNTAIN VALLEY	92708	142225.85	27.96%
83	107-231-11	1210.2	Public	16692		LANDAU	LN	HUNTINGTON BEACH	92647	102763.35	1.18%
84	107-232-05	695.0	Public	16585		MAGNOLIA	ST	WESTMINSTER	92683	88713.46	0.78%
85	107-651-23	15.9	Single Family Resident	16522		LANDAU	LN	HUNTINGTON BEACH	92647	8373.96	0.19%
86	143-251-55	0.5	Single Family Resident	9031		MAZA	CIR	FOUNTAIN VALLEY	92708	8688.40	0.01%

List of Potentially Affected Properties Under Alternative 3 (Preliminary)

Impact ID	APN	Impact (sq/ft)	Land Use	House #	Street Direction	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
87	107-232-03	0.4	Multi-Family Resident	8882		HEIL	AVE	WESTMINSTER	92683	129134.99	0.00%
88	107-232-04	146.8	Commercial	16501		MAGNOLIA	ST	WESTMINSTER	92683	47488.28	0.31%
89		0.6		0						370565.10	0.00%
90	107-781-06	614.1	Commercial	16060		BEACH	BLVD	HUNTINGTON BEACH	92647	49415.39	1.24%
91	107-220-66	542.4	Multi-Family Resident	8400		EDINGER	AVE	HUNTINGTON BEACH	92647	535059.29	0.10%
92	107-836-55	34.1	Single Family Resident	8422		FURMAN	AVE	WESTMINSTER	92683	6052.16	0.56%
93	107-836-24	55.2	Single Family Resident	8412		FURMAN	AVE	WESTMINSTER	92683	6002.08	0.92%
94	107-836-25	1.4	Single Family Resident	8402		FURMAN	AVE	WESTMINSTER	92683	6002.15	0.02%
95	107-212-06	2403.2	Commercial	0				SILVERADO		99693.34	2.41%
96	142-073-17	37.0		0						8104.59	0.46%
97	142-342-23	620.7	Commercial	0						101546.52	0.61%
98	142-342-15	319.7	Commercial	7767		CENTER	AVE	HUNTINGTON BEACH	92647	140339.40	0.23%
99	142-341-09	0.4	Commercial	15559		BEACH	BLVD	WESTMINSTER	92683	19999.53	0.00%
100	142-342-14	18.2	Commercial	7677		CENTER	AVE	HUNTINGTON BEACH	92647	43760.35	0.04%
101	142-341-08	5.8	Commercial	15557		BEACH	BLVD	WESTMINSTER	92683	19999.59	0.03%
102	142-341-07	11.2	Commercial	15541		BEACH	BLVD	WESTMINSTER	92683	17999.54	0.06%
103	142-341-06	22.2	Commercial	15501		BEACH	BLVD	WESTMINSTER	92683	20522.18	0.11%
104	142-471-01	273.6	Commercial	7500		MCFADDEN	AVE	HUNTINGTON BEACH	92647	31527.58	0.87%
105	142-472-02	341.0	Multi-Family Resident	15555		HUNTINGTON VILL LN		HUNTINGTON BEACH	92647	334433.38	0.10%
106	142-341-29	7.4	Single Family Resident	7736		SUGAR	DR	HUNTINGTON BEACH	92647	25958.26	0.03%
107	142-272-10	6.6	Single Family Resident	15461		SHASTA	LN	HUNTINGTON BEACH	92647	7333.09	0.09%
108	142-272-09	2.9	Single Family Resident	15451		CASCADE	LN	HUNTINGTON BEACH	92647	6205.34	0.05%
109	142-272-08	2.9	Single Family Resident	15441		CASCADE	LN	HUNTINGTON BEACH	92647	6287.02	0.05%
110	142-271-04	136.6	Industrial	7531		MCFADDEN	AVE	HUNTINGTON BEACH	92647	62761.78	0.22%
111	142-272-07	2.8	Single Family Resident	15431		CASCADE	LN	HUNTINGTON BEACH	92647	6282.25	0.04%
112	142-272-06	2.7	Single Family Resident	15421		CASCADE	LN	HUNTINGTON BEACH	92647	6277.39	0.04%
113	142-271-05	0.6	Industrial	7501		MCFADDEN	AVE	HUNTINGTON BEACH	92647	32048.63	0.00%
114	142-272-05	2.6	Single Family Resident	15411		CASCADE	LN	HUNTINGTON BEACH	92647	6272.46	0.04%
115	142-272-04	2.6	Single Family Resident	15401		CASCADE	LN	HUNTINGTON BEACH	92647	6267.67	0.04%
116	142-272-03	2.5	Single Family Resident	15391		CASCADE	LN	HUNTINGTON BEACH	92647	6262.78	0.04%
117	142-311-34	788.6	Industrial	0						50782.75	1.55%
118	142-272-02	2.4	Single Family Resident	15381		CASCADE	LN	HUNTINGTON BEACH	92647	6257.91	0.04%
119	142-272-01	2.3	Single Family Resident	15371		CASCADE	LN	HUNTINGTON BEACH	92647	6221.08	0.04%
120	142-263-13	2.1	Single Family Resident	15361		CASCADE	LN	HUNTINGTON BEACH	92647	6032.82	0.04%
121	142-263-12	2.0	Single Family Resident	15351		CASCADE	LN	HUNTINGTON BEACH	92647	6000.49	0.03%
122	142-263-11	1.9	Single Family Resident	15341		CASCADE	LN	HUNTINGTON BEACH	92647	6000.48	0.03%
123	142-263-10	1.9	Single Family Resident	15331		CASCADE	LN	HUNTINGTON BEACH	92647	6006.30	0.03%
124	142-263-09	0.7	Single Family Resident	15321		CASCADE	LN	HUNTINGTON BEACH	92647	7257.24	0.01%
125	142-311-01	307.6		0						41495.15	0.74%
126	142-421-13	1.7	Industrial	15172		GOLDENWEST	CIR	WESTMINSTER	92683	231966.69	0.00%
127	145-231-16	156.5	Commercial	15001		GOLDENWEST	ST	HUNTINGTON BEACH	92647	22246.52	0.70%
128	142-382-13	4625.6	Commercial	15042		GOLDENWEST	ST	WESTMINSTER	92683	156494.18	2.96%
129		716.7		0						172610.17	0.42%

List of Potentially Affected Properties Under Alternative 3 (Preliminary)

Impact ID	APN	Impact (sq/ft)	Land Use	House #	Street Direction	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
130	142-012-02	69.5	Industrial	7300		BOLSA	AVE	WESTMINSTER	92683	55056.31	0.13%
131		13.2		0						5008.32	0.26%
132	195-373-26	1.5	Public	0					92683	44673.39	0.00%
133	096-522-04	1553.4	Commercial	0				WESTMINSTER		4989.13	31.14%
134	195-373-08	20.5	Commercial	6951		BOLSA	AVE	WESTMINSTER	92683	33057.84	0.06%
135	195-373-22	1118.5	Commercial	0				WESTMINSTER		27174.11	4.12%
136	096-522-02	1961.7	Commercial	14980		GOLDENWEST	ST	WESTMINSTER	92683	50042.61	3.92%
137	096-522-05	445.7	Public	0						3216.10	13.86%
138	096-522-06	1443.7	Commercial	0						2584.00	55.87%
139	096-190-66	31.4		0						531094.50	0.01%
140	195-373-09	55.1	Commercial	100		WESTMINSTER	MALL	WESTMINSTER	92683	619339.82	0.01%
141		560.4		0						6333.14	8.85%
142	195-353-01	295.9		0						65540.07	0.45%
143	096-183-08	0.9	Industrial	14726		GOLDENWEST	ST	WESTMINSTER	92683	40947.22	0.00%
144	195-352-10	5.8	Single Family Resident	14701		GOLDENWEST	ST	WESTMINSTER	92683	7208.30	0.08%
145	195-352-09	13.4	Single Family Resident	14691		GOLDENWEST	ST	WESTMINSTER	92683	7200.21	0.19%
146	195-352-08	0.8	Single Family Resident	14681		GOLDENWEST	ST	WESTMINSTER	92683	7200.42	0.01%
147	195-151-34	8.7	Commercial	6452		INDUSTRY	WAY	WESTMINSTER	92683	26185.26	0.03%
148	195-461-01	120.4	Industrial	14528		EDWARDS	ST	WESTMINSTER	92683	146525.09	0.08%
149	195-372-02	553.6	Commercial	14490		EDWARDS	ST	WESTMINSTER	92683	69429.79	0.80%
150	195-371-05	2619.9	Public	6502		HOMER	ST	WESTMINSTER	92683	197261.33	1.33%
151	195-371-04	530.8	Public	0					92683	6421.23	8.27%
152	195-253-07	49.4	Single Family Resident	6211		MAHOGANY	AVE	WESTMINSTER	92683	14769.88	0.33%
153		4152.3		0						95472.91	4.35%
154	195-243-06	7.8	Multi-Family Resident	14082		ASH	ST	WESTMINSTER	92683	9578.54	0.08%
155	195-243-05	7.1	Multi-Family Resident	14062		ASH	ST	WESTMINSTER	92683	9545.79	0.07%
156	195-241-09	5.3	Commercial	14022		SPRINGDALE	ST	WESTMINSTER	92683	46051.04	0.01%
157	195-262-01	86.2	Commercial	6292		WESTMINSTER	BLVD	WESTMINSTER	92683	15970.91	0.54%
158	195-141-01	884.3	Commercial	5992		WESTMINSTER	BLVD	WESTMINSTER	92683	21199.96	4.17%
159	195-141-04	518.0	Commercial	5952		WESTMINSTER	BLVD	WESTMINSTER	92683	73719.38	0.70%
160	203-291-14	625.4	Commercial	5981		WESTMINSTER	BLVD	WESTMINSTER	92683	15396.37	4.06%
161	203-563-04	473.8	Commercial	6311		WESTMINSTER	BLVD	WESTMINSTER	92683	21945.64	2.16%
162	203-291-13	434.6	Commercial	0						10353.75	4.20%
163	203-291-07	0.3	Single Family Resident	0				WESTMINSTER		8431.92	0.00%
164		117.9		0						156948.43	0.08%
165	203-271-16	4.2	Single Family Resident	13721		SPRINGDALE	ST	WESTMINSTER	92683	8024.27	0.05%
166	203-321-02	96.1	Single Family Resident	13711		SIoux	RD	WESTMINSTER	92683	6563.64	1.46%
167	203-322-05	7.6	Single Family Resident	13691		SIoux	RD	WESTMINSTER	92683	7361.09	0.10%
168	203-282-06	1.9	Single Family Resident	5821		VALLECITO	DR	WESTMINSTER	92683	7242.01	0.03%
169	203-282-05	5.9	Single Family Resident	5811		VALLECITO	DR	WESTMINSTER	92683	7568.81	0.08%
170	203-261-13	3.3	Single Family Resident	13692		SPRINGDALE	ST	WESTMINSTER	92683	10161.60	0.03%
171	203-282-04	3.3	Single Family Resident	5801		VALLECITO	DR	WESTMINSTER	92683	7208.95	0.05%
172	203-282-03	1.1	Single Family Resident	5795		VALLECITO	DR	WESTMINSTER	92683	7208.72	0.02%
173	095-020-19	30640.1	Public	0					90740	53428606.04	0.06%

List of Potentially Affected Properties Under Alternative 3 (Preliminary)

Impact ID	APN	Impact (sq/ft)	Land Use	House #	Street Direction	Street Name	Street Type	City	Zip	Full Parcel Area (sq/ft)	% of Impact
174	217-144-19	0.5	Public	0						65581.09	0.00%
175	086-011-13	933.1	Public	0				SEAL BEACH		5416.07	17.23%
176	130-014-06	4620.8		0						29894.02	15.46%
177	086-011-54	560.1	Public	0						742.26	75.46%
178	086-011-19	1263.1	Public	0				SEAL BEACH		1642.15	76.92%
179	086-483-22	13978.7	Public	0					90720	66706.07	20.96%
180	217-371-07	145.0	Commercial	3850		LAMPSON	AVE	SEAL BEACH	90740	251638.10	0.06%
181	086-451-14	67.2	Public	0					90720	44107.61	0.15%
182	086-444-23	598.0	Single Family Resident	12691		MARTHA ANN	DR	LOS ALAMITOS	90720	12807.01	4.67%
183	156-094-01	1096.7	Commercial	10480		TALBERT	AVE	FOUNTAIN VALLEY	92708	159062.98	0.69%
184	195-373-17	58.9	Commercial	300		WESTMINSTER	MALL	WESTMINSTER	92683	1333468.42	0.00%
185	195-373-25	848.2	Commercial	14600		EDWARDS	ST	WESTMINSTER	92683	63417.15	1.34%
186	195-373-27	0.8	Commercial	0						42031.85	0.00%
187	195-271-29	25.6	Multi-Family Resident	14181		EDWARDS	ST	WESTMINSTER	92683	228020.72	0.01%
188	195-291-03	2.2	Single Family Resident	0						4912.39	0.05%
189	203-313-02	29445.3		0						61734.56	47.70%
		643213.5								72722249.78	0.88%

Appendix B

Draft Relocation Impact Memorandum

RELOCATION IMPACT MEMORANDUM

San Diego Freeway (I-405) Improvement Project
SR-73 to I-605

Orange and Los Angeles Counties

12-ORA-405 PM 9.3/24.2 / 07-LA-405 PM 0.0/1.2
12-ORA-22 PM R0.7/R3.8 / 12-ORA-22 PM R0.5/R0.7
12-ORA-73 PM R27.2/R27.8 / 12-ORA-605 PM 3.5/R1.6
07-LA-605 PM R0.0/R1.2

EA 0H1000
EFIS ID 1200000180



February 2011



STATE OF CALIFORNIA
Department of Transportation

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Potential Impact	3
Relocation Study	4

Attachment A: Figures

- Figure 1 Regional Vicinity Map
- Figure 2 Project Location map
- Figure 3 Aerial Map of the Project Corridor (3 map Sheets)
- Figure 4 Properties Subject to Full Acquisition Under All Build Alternatives.

Attachment B: Real Estate Data

- Map Index
- Sport Authority
- Days Inn & Suites Huntington Beach
- Fountain Valley Skating Center
- Boomers!

Memorandum

Business, Transportation and Housing Agency

TO: Ahmad Hindiyeh, Project Manager
Matthew Cugini, Engineering Manager
Smita Deshpande, Environmental Branch Chief

DATE: February 14, 2011

FILES:
12-ORA-405 PM 9.3/24.2 / 07-LA-405 PM
0.0/1.2
12-ORA-22 PM R0.7/R3.8 / 12-ORA-22 PM
R0.5/R0.7
12-ORA-73 PM R27.2/R27.8 / 12-ORA-605
PM 3.5/R1.6
07-LA-605 PM R0.0/R1.2
EA 12-0H1000

FROM: Department of Transportation – District 12
Right of Way Relocation Assistance

SUBJECT: Interstate 405 (I-405) Improvement Project
Draft Relocation Impact Memorandum

It has been determined there is no significant impact to owners, tenants, businesses, or persons in possession of real property to be acquired who would qualify for relocation assistance benefits or entitlements under the Uniform Relocation Assistance and Real Property Act of 1970, as amended.

The California Department of Transportation, in cooperation with the Orange County Transportation Authority, proposes to improve this mainline freeway and interchanges on Interstate 405 (I-405) in Orange County, California, for approximately 16 miles (mi). The proposed project is primarily located in Orange County, California, on I-405 (ORA PM 9.3/24.2; LA PM 0.0/1.2) between State Route (SR)-73 (ORA PM R27.2/R27.8) and Interstate 605 (I-605) (ORA PM 3.5/R1.6); LA PM R0.0/R1.2). Encroachments into Los Angeles County and work on SR-22 (ORA PM R0.7/R3.8 and R0.5/R0.7) are associated with signing and striping to accommodate the transition from the existing to proposed facility (see Figures 1, 2, and 3 in Attachment A for project vicinity map, project location map, and aerial view map). Within the limits of the proposed project, I-405 is a controlled-access highway facility with a fenced right-of-way and soundwalls, separated by grade from crossing traffic, with vehicular access limited to interchanges. Within the project area, I-405 consists of 8 to 12 mixed-flow general purpose (GP) lanes and two high-occupancy vehicle (HOV) lanes.

Project Alternatives:

Three build alternatives and a No Build Alternative are being considered. The following paragraphs provide a brief description of the build alternatives.

Common Features of All Build Alternatives:

Build Alternatives 1, 2, and 3 would include the following features:

- One GP lane would be added in each direction of I-405 from Euclid Street to the I-605 interchange.
- Travel lanes on the I-405 mainline would be 12- foot [ft]-wide, and right side shoulders would be 10-ft- wide.
- The pedestrian bridge and local street overcrossings proposed for complete replacement under Alternatives 1, 2, and 3 are the following:

- Ward Street
 - Talbert Avenue
 - Brookhurst Street
 - Slater Avenue
 - Bushard Street
 - Warner Avenue
 - Magnolia Street
 - Pedestrian overcrossing near Heil Avenue
 - Newland Street
 - Edinger Avenue
 - McFadden Avenue
 - Bolsa Avenue
 - Goldenwest Street
 - Edwards Street
 - Westminster Boulevard
 - Springdale Street
- Bolsa Chica RoadThe Euclid Street/Ellis Avenue undercrossing bridge would be modified and extended.
 - Two railroad overheads would be modified and extended.¹
 - Each build alternative would include interchange reconfigurations at Euclid Street, Ellis Avenue, Brookhurst Street, Magnolia Street, Warner Avenue, Beach Boulevard, and Westminster Boulevard.
 - Maintenance vehicle pullouts (MVP) would be included in various locations under each build alternative.

Alternative 1 – Add One GP Lane in Each Direction

Alternative 1 would add a single GP lane in each direction of I-405 from Euclid Street to the I-605 interchange. Alternative 1 would provide a full standard highway cross section, with 12- ft-wide mainline travel lanes as well as 10-ft-wide shoulders on both left (inside) and right (outside) sides in both directions.

Alternative 2 – Add Two GP Lanes in Each Direction

Alternative 2 would add one GP lane in each direction of I-405 from Euclid Street to the I-605 interchange (as in Alternative 1), plus add a second GP lane in the northbound direction from Brookhurst Street to the SR-22/7th Street interchange and a second GP lane in the southbound direction from the Seal Beach Boulevard on-ramp to Brookhurst Street. Alternative 2 would provide a full standard highway cross section, with 12-ft-wide mainline travel lanes and shoulders on the left and right sides in both directions. Right side (outside) shoulders would be 10-ft-wide, while left side (inside) shoulders would have a maximum width of 10 ft with a provision for a widened left shoulder for HOV enforcement areas under consideration.

Alternative 3 – Express Facility

Alternative 3 would add one GP lane in each direction of I-405 from Euclid Street to the I-605 interchange (as in Alternatives 1 and 2), plus add a tolled express lane in each direction of I-405

¹ The freeway passes over the Union Pacific Railroad (UPRR) on the Bolsa Overhead (Bridge No. 55-269 at PM 17.21) and the U.S. Navy Railroad on the Navy Overhead (Bridge No. 55-272 at PM 18.36).

from SR-73 to I-605. The tolled express lane would be placed beside the existing HOV lane in each direction. The existing HOV lanes and new toll lanes would be managed jointly as an Express Lane Facility with two lanes in each direction. Alternative 3 would provide a full standard highway cross section, with 12-ft-wide mainline travel lanes and shoulders on the left and right sides in both directions. Right side (outside) shoulders would be 10-ft-wide, while left side (inside) shoulders would have a maximum width of 10 ft with a provision for a widened left shoulder for enforcement areas under consideration. The joint HOV/toll lane Express Lane Facility would be separated from the GP lanes by a 1 to 4 ft buffer.

Potential Impacts:

A preliminary engineering study and field surveys were conducted to determine the potential impact on the residential and non-residential units. The proposed project would require some right-of-way acquisition to accommodate the freeway widening and roadway improvements. In addition, there may be some personal property affected by the project that may have to be moved or stored off-site during project construction. Most of the right-of-way acquisition would involve a sliver of land requiring no relocation or disruption to the current function of the properties (see Table 1 on the next page). Only four private properties, all are used as commercial establishments, would be subject to full acquisition requiring relocation (see Table 2 on the next page and Figure 3 in Attachment A). No residential relocation would be required.

Table 1 – Summary of Potentially Affected Properties

Alternative Number	Number of Parcels Potentially Affected	Number of Residences Potentially Affected	Number of Businesses Potentially Affected
1 Add one GP lane in each direction	155	0	4
2 Add two GP lanes in each direction	173	0	4
3 Express Facility	189	0	4
Note: Number of potentially affected parcels listed includes vacant land, river, and publicly owned parcels.			

Source: Estimated by Parsons based on the preliminary design information.

Table 2 – Required Property Takes

APN	Name/Address	Type of Property	Current Zone
143-301-39	Sports Authority 9065 Warner Avenue, Fountain Valley, CA 92708	Commercial, chain retailed store	C1 (Local Commercial)
143-301-34	Days Inn & Suites Huntington Beach 9125 Recreation Circle, Fountain valley, CA 92708	Commercial, chain motel	C2 (General Commercial)
143-301-33	Fountain Valley Skating Center 9105 Recreation Circle, Fountain Valley, CA 92708	Commercial, indoor recreation facility	C2 (General Commercial)
143-294-01	Boomers! 16800 Magnolia Street, Fountain Valley, CA 92708	Commercial, indoor and outdoor recreation facility	C2 (General Commercial)

Source: Estimated by Parsons based on the preliminary design information.

Relocation Study:

According to YellowPages.Com, there are similar businesses to Sports Authority, Days Inn, Fountain Valley Skate Center, and Boomers! within a 5-mile radius from the City of Fountain Valley and nearby vicinity (see Attachment B – Real Estate Data). The closest Boomers! is located approximately 7 miles away from the current location.

Based on the nature of business of Sports Authority (retailed sporting products) and Days Inn (chain motel), replacement of these businesses would not be difficult. Current real estate market data indicated that there are adequate resources in the City of Fountain Valley and nearby vicinity to accommodate relocation of the retailed sporting products and motel businesses as can be seen in the real estate data (Attachment B).

Relocation of Boomers! and Fountain Valley Skate Center would be more complicated and would require interviews with business owners to identify suitable replacement site and address specific relocation issues. Current real estate market data indicate that there are 4 vacant land for sale listings with a commercial zoning ranging from 3 to 4 acres in size that can be used to relocate Boomers, and about 3 comparable sites that can be used to relocate the Fountain Valley Skate Center. Zoning change, if required, would be possible through the respective City Planning Department.

On-site appraisals to determine actual market value will be conducted for each property to be relocated based on current market conditions prior to acquisition. Any person (individual, family, corporation, partnership, or association) who moves from real property or moves personal property from real property as a result of the acquisition of the real property, or required to relocate as a result of a written notice from the California Department of Transportation from the real property required for a transportation project is eligible for "Relocation Assistance," including "Last Resort Housing" benefits, should that be necessary. All activities will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and the California Department of Transportation Right-of-Way Manual.

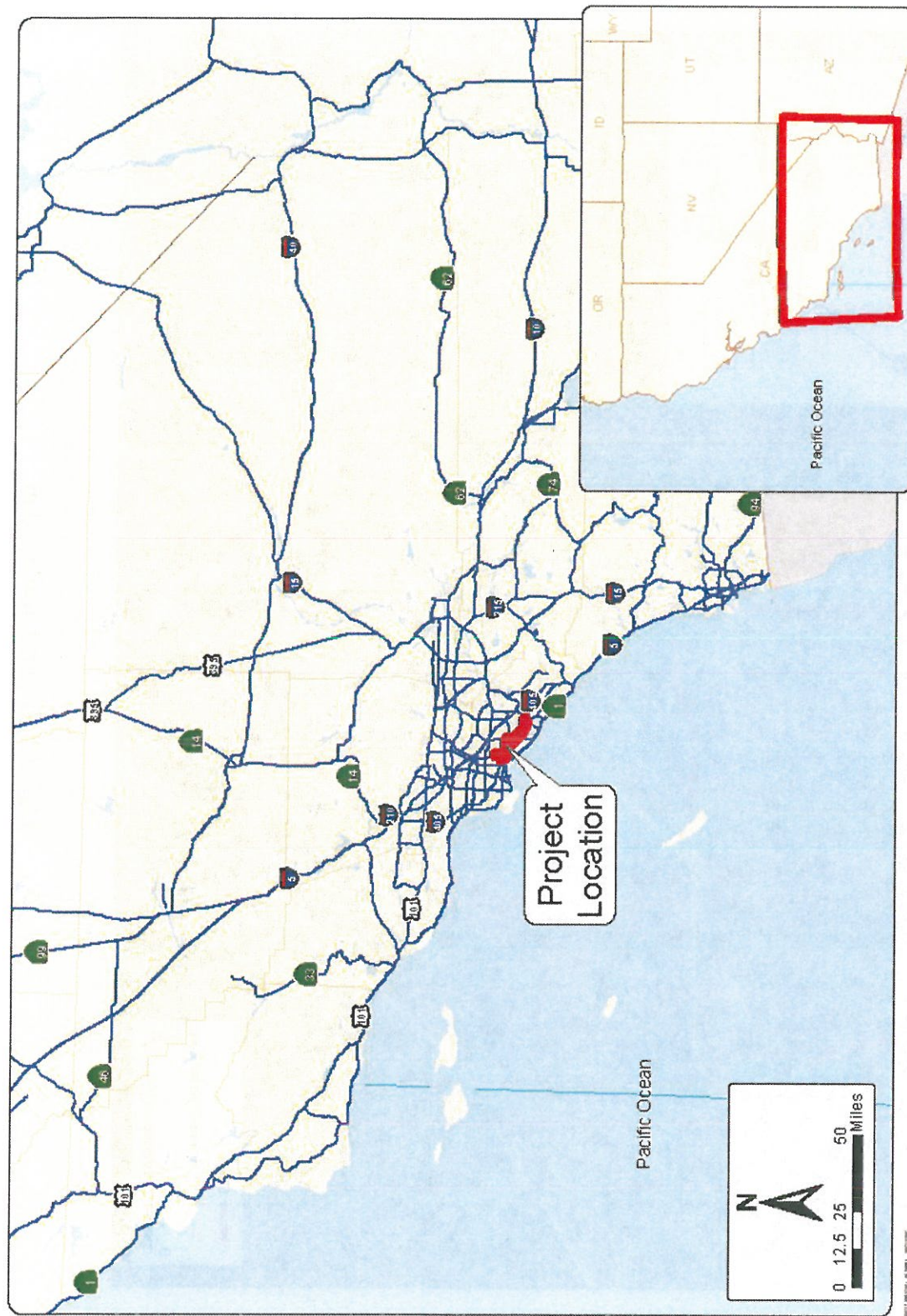
Anne Kochoon, QEP
Project Manager, Parsons

Concurrence:

Robert Enriquez, Branch Chief
Right of Way Utilities, Local Programs,
Excess Land and Relocation Assistance
Program Branches

ATTACHMENT A

FIGURES



Source: Parsons 2010

Figure 1 Regional Vicinity Map



Figure 2 Project Location Map

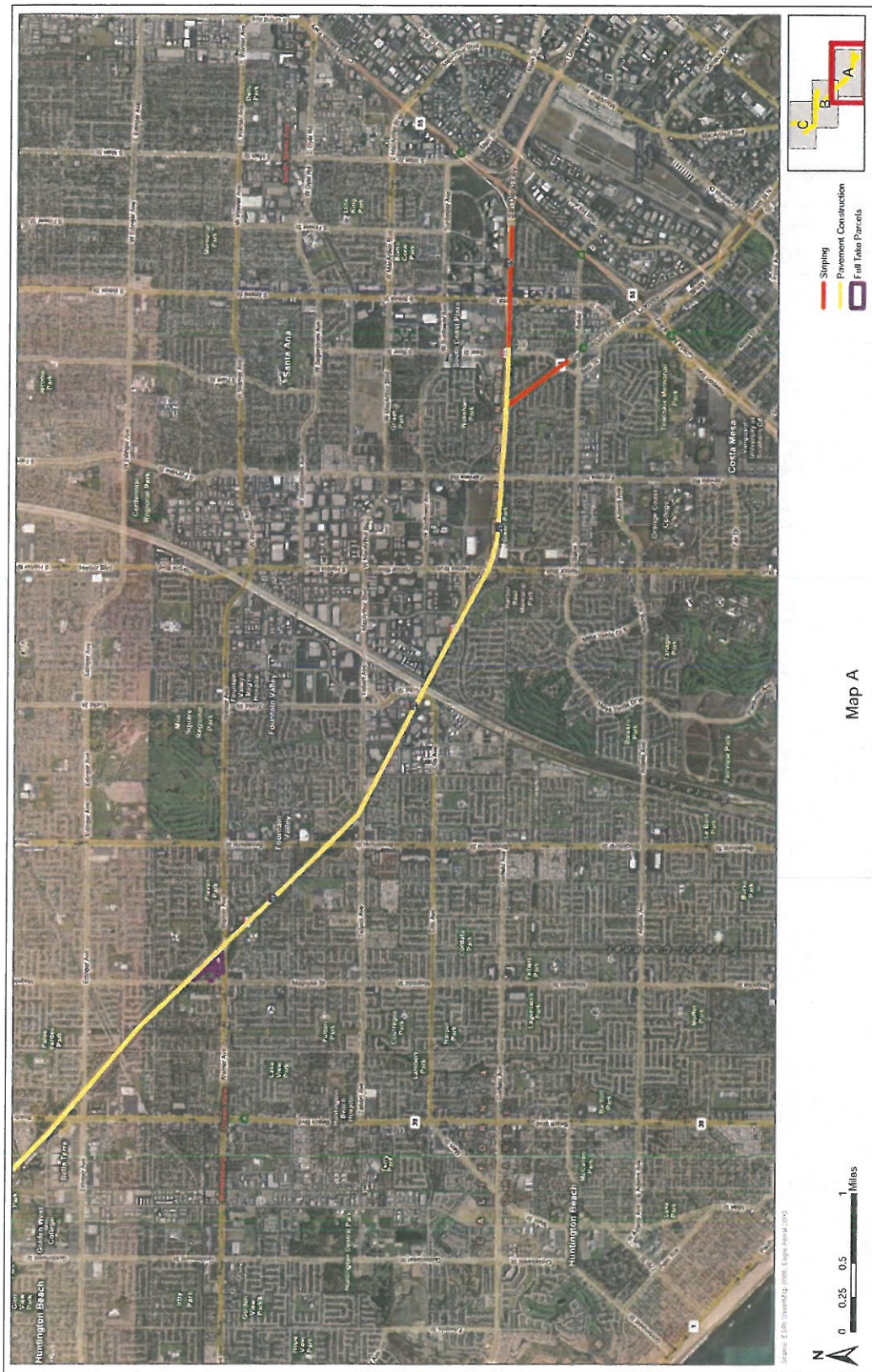


Figure 3 Aerial Map of the Project Corridor (Map A)

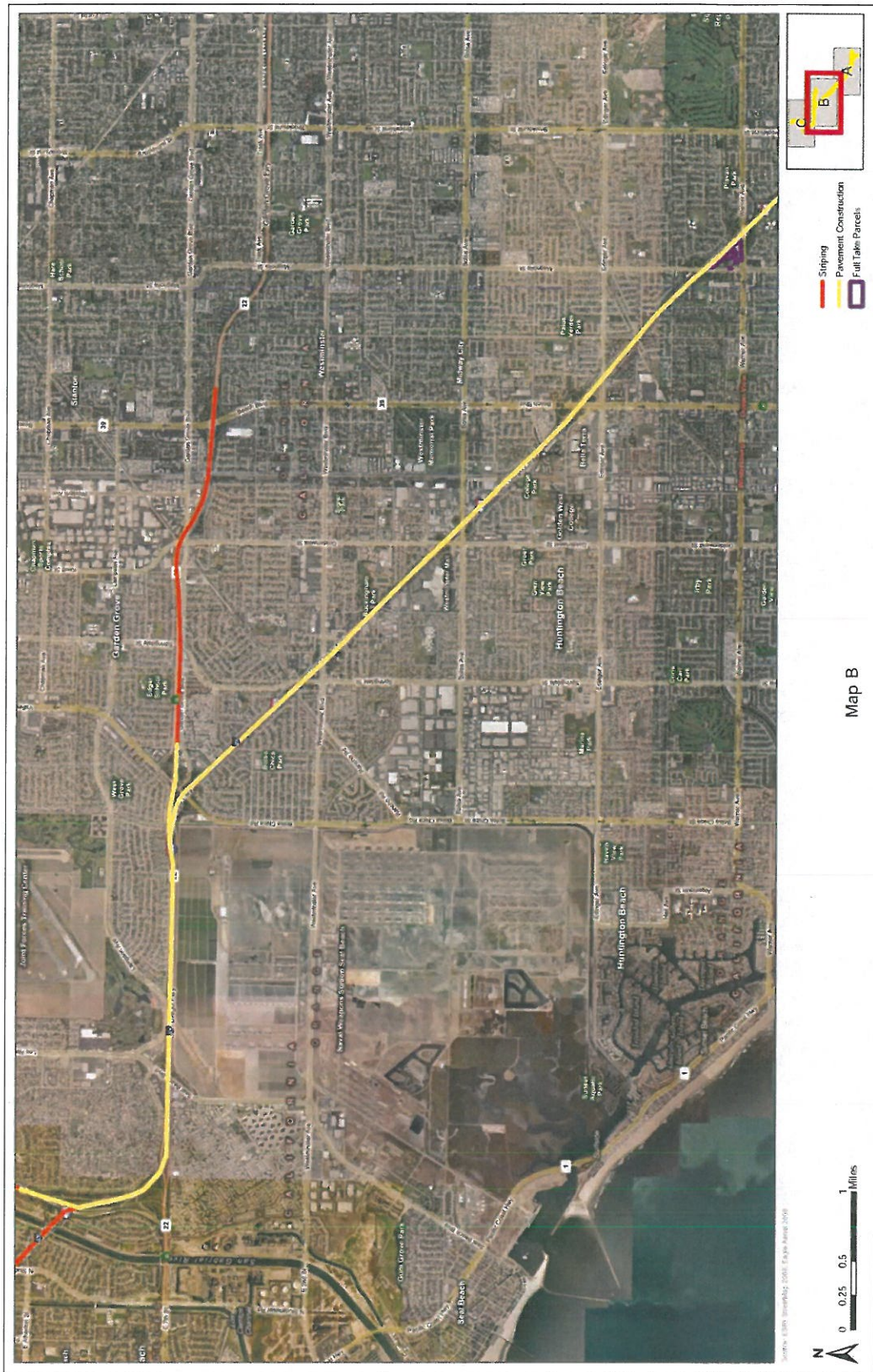


Figure 3 Aerial Map of the Project Corridor (Map B)

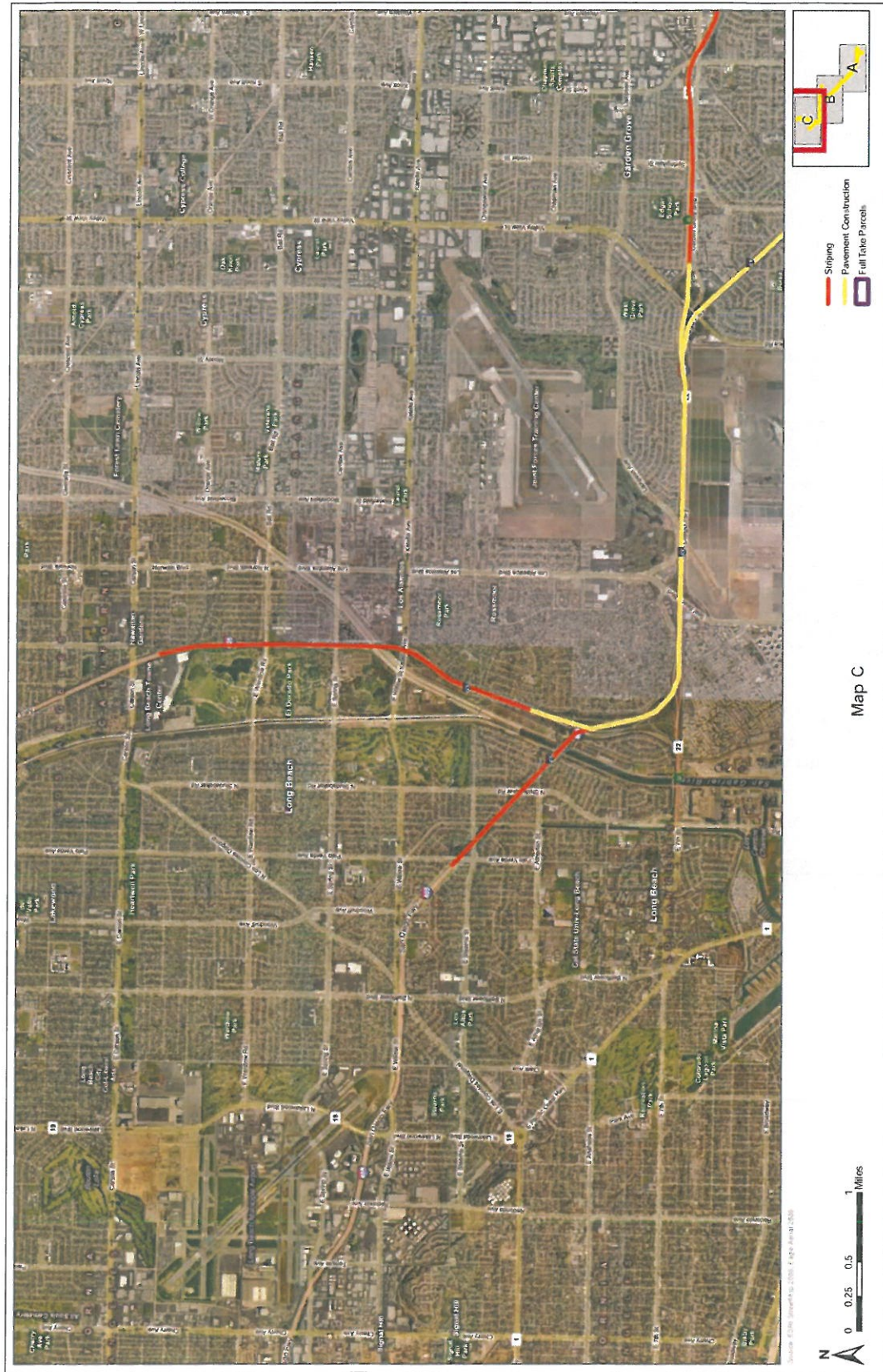


Figure 3 Aerial Map of the Project Corridor (Map C)



Source: Parsons 2010

**Figure 4: Properties Subject to Full Acquisition
Under All Build Alternatives**

ATTACHMENT B
REAL ESTATE DATA



MAP INDEX
Properties subject to full acquisition

Sports Authority

Owner Name	Parcel Number / Property Tax ID	Site Address	Mail Address
AMERICAN SOUTHWEST / VENTURE I	143-301-39	9065 WARNER AVE FOUNTAIN VALLEY, CA 92708-2771	1050 W HAMPDEN AVE ENGLEWOOD, CO 80110-2118

Property Profile

Ownership Information

Primary Owner	AMERICAN SOUTHWEST
Secondary Owner	VENTURE I
Ownership Description	CO-OWNER
Site Address	9065 WARNER AVE
Site City, St Zip	FOUNTAIN VALLEY, CA 92708-2771
Mail Address	1050 W HAMPDEN AVE
Mail City, St Zip	ENGLEWOOD, CO 80110-2118
Telephone	
Census Tract	0992.24
Legal Description	P BK 270 PG 19 PAR 2
Lot/Block	2/19
Housing Tract / Subdivision Name	

Property Details

Use Description	COMMERCIAL MISCELLANEOUS	
State	CALIFORNIA	County/Municipality
RTSQ		ORANGE
Zoning		Total Rooms
Number Of Units		Bedrooms
Year Built/Effect Yr Built		Bathrooms
# Of Stories		Basement Square Feet
Lot Size		Basement Description(s)
Usable Lot Size		View
Lot Depth		Pool
Lot Width		FirePlace
Square Feet		HT/AC
Square Ft 1st Flr		Cooling Detail
Square Ft 2nd Flr		Heating Detail
Square Ft 3rd Flr		Roof Type
Additions - Square Feet		Construction Quality
Parking		Construction Type
Parking Square Feet		Exterior
New Page Grid	828-C7	Foundation
Map Page Grid	21-E5	Building Shape

Tax Information

Assessor's Parcel Number / Tax ID	143-301-39	Assessor's Market Value	\$0
Alt Assessor's Parcel Number		Exemption	
Assessed Total	\$6,151,777	Tax Amount	\$67,677.54
Land Total	\$3,577,258	Tax Status	Current
Improvement	\$2,574,519	Year Delinquent	
Percent Improvement	42%	Tax Rate Area	21012

Sale Information

Last Sales Date		1st Loan Amount
Document Number		First Loan Type
Sale Value		2nd Loan Amount
Last Transaction W/O \$		Cost / Square feet
Last Transaction W/O \$ Doc		
Title Company		

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This information is compiled from public documents and is not guaranteed.

Business Name: Sports Authority (Corporation)
Parcel No.: 143-301-39
Address: 9065 Warner Ave, Fountain Valley 92708
Property Owner: American Southwest / Venture I
Zoning: C1 (Local Commercial)

Yrs of Operation: Unknown at this time

Business Hours: Sunday 10 AM – 9 PM
Mon – Thur 11 AM – 9 PM
Friday 11 AM – 9 PM
Saturday 10 AM – 11 PM

of Employees: 20 to 49 *

* Source: Manta.com. Manta is a business services website, covering large to small companies, their related industries and products.

Estimated level of
Income and Tax
Revenue: \$5 to \$10 Million annually*

* Source: Manta.com.

Identify similar
businesses

nearby: According to YellowPages.com, there are about (114) similar businesses in a five (5) mile radius from the city of Fountain Valley and nearby vicinity. These businesses are described as Sporting Goods and Sporting Goods – Wholesale & Manufacturers.

Research the area
that each business
can be relocated to:

Current market data indicates there is an adequate stock of potential suitable replacement sites for lease or purchase. As of October 21, 2010, there are about (20) For Lease and (9) For Sale property listings listed on Loopnet.com. *

* Source: LoopNet.com is an online commercial real estate website providing products and services tailored to the national and local needs of the commercial investment industry. Listings available on LoopNet include all commercial real estate property categories such as commercial office space for lease and for sale, multifamily apartments, retail space and land for sale.

Days Inn & Suites Huntington Beach

Owner Name	Parcel Number / Property Tax ID	Site Address	Mail Address
E K B K INC	143-301-34	9125 RECREATION CIR FOUNTAIN VALLEY, CA 92708-2770	1324 N PACIFIC AVE GLENDALE, CA 91202-1614

Property Profile

Ownership Information

Primary Owner	E K B K INC
Secondary Owner	
Ownership Description	
Site Address	9125 RECREATION CIR
Site City, St Zip	FOUNTAIN VALLEY, CA 92708-2770
Mail Address	1324 N PACIFIC AVE
Mail City, St Zip	GLENDALE, CA 91202-1614
Telephone	
Census Tract	0992.24
Legal Description	N TR 8859 LOT 4
Lot/Block	4/NA
Housing Tract / Subdivision Name	8859

Property Details

Use Description	COMMERCIAL MISCELLANEOUS	County/Municipality	ORANGE
State	CALIFORNIA	Total Rooms	
RTSQ		Bedrooms	
Zoning		Bathrooms	
Number Of Units	70 Rooms	Basement Square Feet	
Year Built/Effect Yr Built	1984	Basement Description(s)	
# Of Stories		View	
Lot Size	37,941 SQFT / 0.8710 Acres	Pool	
Usable Lot Size		FirePlace	
Lot Depth		HT/AC	
Lot Width		Cooling Detail	
Square Feet	26,738	Heating Detail	
Square Ft 1st Flr		Roof Type	
Square Ft 2nd Flr		Construction Quality	
Square Ft 3rd Flr		Construction Type	
Additions - Square Feet		Exterior	
Parking		Foundation	
Parking Square Feet		Building Shape	
New Page Grid	828-C7		
Map Page Grid	21-E5		

Tax Information

Assessor's Parcel Number / Tax ID	143-301-34	Assessor's Market Value	\$0
Alt Assessor's Parcel Number		Exemption	
Assessed Total	\$4,600,000	Tax Amount	\$30,381.90
Land Total	\$2,276,540	Tax Status	Current
Improvement	\$2,323,460	Year Delinquent	
Percent Improvement	51%	Tax Rate Area	21012

Sale Information

Last Sales Date	October 1, 2009	1st Loan Amount	\$2,000,000
Document Number	0000521763	First Loan Type	Conventional
Sale Value		2nd Loan Amount	\$1,850,000
Last Transaction W/O \$		Cost / Square feet	
Last Transaction W/O \$ Doc			
Title Company	FIDELITY NATIONAL TITLE		

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This information is compiled from public documents and is not guaranteed.

Business Name: Days Inn & Suites Huntington Beach (Corporation)
Parcel No.: 143-301-34
Address: 9125 Recreation Circle, Fountain Valley 92708
Property Owner: E K B K Inc.
Zoning: C2 (General Commercial)

Yrs of Operation: 15 Years

Business Hours: 24 Hours / 7 Days a week

of Hotel Rooms: 70 units

of Employees: 5 to 9 *

* Source: Manta.com. Manta is a business services website, covering large to small companies, their related industries and products.

Estimated level of
Income and Tax
Revenue: \$500,000 to \$1 Million annually

* Source: Manta.com.

Identify similar
businesses

nearby: According to YellowPages.com, there are about (95) similar businesses in a five (5) mile radius from the city of Fountain Valley and nearby vicinity. These businesses are described as Hotels / Motels.

Research the area
that each business
can be relocated to:

As of October 21, 2010, current market data indicates there are about (13) For Sale property listings listed on Loopnet* as potential suitable replacement sites. They operate along corridors through the city where drivers can see them and stop for the night. The zoning codes keep them in certain areas to accommodate the needs of visitors and travelers. Most appropriate replacement sites are occupied by the competition.

* Source: LoopNet is an online commercial real estate website providing products and services tailored to the national and local needs of the commercial investment industry. Listings available on LoopNet include all commercial real estate property categories such as commercial office space for lease and for sale, multifamily apartments, retail space and land for sale.

Fountain Valley Skating Center

Owner Name	Parcel Number / Property Tax ID	Site Address	Mail Address
RTL PROPERTIES INC	143-301-33	9105 RECREATION CIR FOUNTAIN VALLEY, CA 92708-2770	9105 RECREATION CIR FOUNTAIN VALLEY, CA 92708-2770
Property Profile			
Ownership Information			
Primary Owner		RTL PROPERTIES INC	
Secondary Owner			
Ownership Description			
Site Address		9105 RECREATION CIR	
Site City, St Zip		FOUNTAIN VALLEY, CA 92708-2770	
Mail Address		9105 RECREATION CIR	
Mail City, St Zip		FOUNTAIN VALLEY, CA 92708-2770	
Telephone			
Census Tract		0992.24	
Legal Description		N TR 8859 LOT 3	
Lot/Block		3/	
Housing Tract / Subdivision Name		8859	
Property Details			
Use Description	COMMERCIAL MISCELLANEOUS		
State	CALIFORNIA	County/Municipality	ORANGE
RTSQ		Total Rooms	
Zoning		Bedrooms	
Number Of Units		Bathrooms	
Year Built/Effect Yr Built	1975 /	Basement Square Feet	
# Of Stories		Basement Description(s)	
Lot Size	58,501 SQFT / 1.3430 Acres	View	
Usable Lot Size		Pool	
Lot Depth		FirePlace	
Lot Width		HT/AC	
Square Feet	21,628	Cooling Detail	
Square Ft 1st Flr		Heating Detail	
Square Ft 2nd Flr		Roof Type	
Square Ft 3rd Flr		Construction Quality	
Additions - Square Feet		Construction Type	
Parking		Exterior	
Parking Square Feet		Foundation	
New Page Grid	828-C7	Building Shape	
Map Page Grid	21-E5		
Tax Information			
Assessor's Parcel Number / Tax ID	143-301-33	Assessor's Market Value	\$0
Alt Assessor's Parcel Number		Exemption	
Assessed Total	\$1,233,471	Tax Amount	\$18,464.84
Land Total	\$443,926	Tax Status	Current
Improvement	\$789,545	Year Delinquent	
Percent Improvement	64%	Tax Rate Area	21012
Sale Information			
Last Sales Date	June 29, 1978	1st Loan Amount	
Document Number		First Loan Type	
Sale Value	\$650,000	2nd Loan Amount	
Last Transaction W/O \$		Cost / Square feet	\$30
Last Transaction W/O \$ Doc			
Title Company			

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Business Name: Fountain Valley Skating Center (Corporation)
Parcel No.: 143-301-33
Address: 9105 Recreation Circle, Fountain Valley 92708
Property Owner: RTL Properties Inc.
Zoning: C2 (General Commercial)

Yrs of Operation: 34 Years

Business Hours: Varies due to private lessons but generally, 6 PM – 11 PM on most weekday nights, Saturday 11 AM – 5 PM and Sunday 1 PM – 5 PM.

of Employees: 1 to 4 *

* Source: Manta.com. Manta is a business services website, covering large to small companies, their related industries and products.

Estimated level of
Income and Tax
Revenue: Less than \$500,000 *

* Source: Manta.com.

Identify similar
businesses

nearby: According to YellowPages.com, there are about (15) similar businesses in a five (5) mile radius from the city of Fountain Valley and nearby vicinity. These businesses are described as Skating Rinks.

Research the area
that each business
can be relocated to:

Detailed interviews with the business owner will need to be conducted to identify suitable replacement sites (demographics) and identify the various business relocation issues, including the trade fixtures and equipment, tenant improvements, personalty and realty issues.

As of January 27, 2011, current market data indicates there are about (3) For Lease comparable listings in the nearby vicinity and are listed below:

1. 2020 East Orangethorpe Avenue, Anaheim, CA – currently zoned for Commercial Recreational, according to the City of Anaheim Planning and Building Department. This building has similar square footage of the building area.
2. 1141 West Katella Avenue, Orange, CA – currently zoned for Commercial Recreational, according to the City of Orange Planning and Building Department. This is a freestanding building that is similar in size and has 55 parking stalls.
3. 16272 Beach Boulevard, Huntington Beach, CA – currently zoned for Commercial Retail, according to the City of Huntington Beach Planning and Building Department. This building is similar in size, offers high visibility and located near the 405 freeway.

In each of the above-mentioned replacement sites, the reviewing agency will need to confirm with the Landlord for the proposed use under the current zoning. An application for a Conditional Use Permit (CUP) may be required if the proposed use is not permitted under the current zoning.

* Source: LoopNet.com is an online commercial real estate website providing products and services tailored to the national and local needs of the commercial investment industry. Listings available on LoopNet include all commercial real estate property categories such as commercial office space for lease and for sale, multifamily apartments, retail space and land for sale.

2020 East Orangethorpe Avenue



2020 East Orangethorpe Avenue
Anaheim, CA 92806

County: Orange
Property Type: Industrial
Office Showroom
Total Space Available: 21,225 SF
Building Size: 21,225 SF
Year Built: 1973

Suite/Floor	Space Available	Minimum Divisible	Maximum Contiguous	Rental Rate	Date Available	Space Type	Lease Type
Space 1	21,225 SF	21,225 SF	21,225 SF	\$0.78/SF/Month	3/1/2011	Industrial	Industrial Gross
Sublease:		No		Clear Ceiling Height:	16 feet		
No. Parking Spaces:		40		Office SF:	6325SF		
No. Grade-Level Doors:		4		Additional Types:	Manufacturing, Warehouse		

- Major Street Frontage with Excellent Signage
- 5,000 +/- sf Showroom with 14' Ceilings and Large Glass Storefront
- Direct Access to both the 57 and 91 Freeways
- Industrial Zone with CUP for additional Commercial / Retail Uses

Property Description

Warehouse/showroom facility with fenced yard, fire sprinklers and 600 amp power.

Location Description

Major street frontage and signage with direct access to the 91 and 57 Freeways.

Zoning Description

Industrial with CUP for some Retail/Commercial

Contact

Dave Hunsaker

Lee & Associates

(714) 564-7113

Created: 1/28/2011

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This information comes from users and sources believed to be reliable, but is not guaranteed.

1141 W. Katella Avenue



1141 W. Katella Avenue
Orange, CA 92867

County: Orange
Property Type: Retail
Street Retail
Total Space Available: 16,320 SF
Building Size: 16,320 SF
Year Built:

Suite/Floor	Space Available	Minimum Divisible	Maximum Contiguous	Rental Rate	Date Available	Space Type	Lease Type
Space 1	16,320 SF			\$0.88/SF/Month	Immediate	Retail	Industrial Gross
Sublease:		No		Additional Types:		Manufacturing, Office	
No. Parking Spaces:		55				Showroom	

- » Fenced Yard Possible
- » Major Street Frontage
- » 5,057 Sq. Ft. Total Improved Space (Offices & Showroom)
- » 55 Parking Stalls (3.38:1 ratio)
- » 2,925 Sq. Ft. Showroom

Property Description

This is a 16,320 sq. ft. freestanding building with major street frontage and building signage is possible. The property is zoned CR (Commercial Recreational) and has a total of 5,057 sq. ft. of improved space, including 2,925 sq. ft. office, 1,458 sq. ft. showroom and 674 sq. ft. shop office. The office area has 5 private offices, a conference room, break room, storage room and open office area. Three ground level loading doors, 800 amp power and 55 parking stalls (3.38:1 ratio). IT'S POSSIBLE THE CITY WOULD ALLOW LIGHT INDUSTRIAL USES.

Location Description

The building is located on Katella Avenue, between Batavia Street to the east and Main Street to the west in Orange, CA. Katella Avenue is a major street with many retail businesses and services, as well as nearby industrial businesses. The property is very close to the 57, 91, 5 and 22 freeways, as well as near Angel Stadium, the Honda Center and Disneyland.

Zoning Description

CR-Commercial Recreational

Cross Street: Main/Batavia

Contact

Brian Dalton

PR Properties, Inc.

(714) 777-1468

Created: 1/28/2011

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This information comes from users and sources believed to be reliable, but is not guaranteed.

16272 Beach Boulevard



16272 Beach Blvd.
Huntington Beach, CA 92647

County: Orange
Property Type: Retail
Retail (Other)
Total Space Available: 24,000 SF
Building Size: 24,000 SF
Year Built:

Suite/Floor	Space Available	Minimum Divisible	Maximum Contiguous	Rental Rate	Date Available	Space Type	Lease Type
16272	24,000 SF			Negotiable	Immediate	Retail	NNN
Sublease:		No					

Property Description

Unique big box opportunity in highly coveted trade area. Tremendous visibility to Beach Boulevard. Ample parking field with good access off Beach Boulevard and Stark Street. Expanded drawing power as site located near Interstate 405. Notable tenants in the market include Whole Foods, Kohl's, Barnes & Noble, Nordstrom Rack, Target, Marshall's and Smart & Final Extra.

Location Description

Code: rippolitoadv Code: kwalttonadv Code: allocadv Code: huntingtonadv

Contact

Kam Walton
Rob Ippolito

Cushman & Wakefield
Cushman & Wakefield of San Diego, Inc.

(949) 930-9256
(858) 452-6500

Created: 1/28/2011

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This information comes from users and sources believed to be reliable, but is not guaranteed.

Boomers!

Owner Name	Parcel Number / Property Tax ID	Site Address	Mail Address
HUIXSH,JOHN M TRUST / COMP	143-294-01	16800 MAGNOLIA ST FOUNTAIN VALLEY, CA 92708-2755	PO BOX 543185 DALLAS, TX 75354-3185

Property Profile

Ownership Information

Primary Owner	HUIXSH,JOHN M TRUST
Secondary Owner	COMP
Ownership Description	
Site Address	16800 MAGNOLIA ST
Site City, St Zip	FOUNTAIN VALLEY, CA 92708-2755
Mail Address	PO BOX 543185
Mail City, St Zip	DALLAS, TX 75354-3185
Telephone	
Census Tract	0992.24
Legal Description	SEC 19 T 5 R 10 POR SW1/4
Lot/Block	19/10
Housing Tract / Subdivision Name	

Property Details

Use Description	COMMERCIAL MISCELLANEOUS	County/Municipality	ORANGE
State	CALIFORNIA	Total Rooms	
RTSQ		Bedrooms	
Zoning		Bathrooms	
Number Of Units		Basement Square Feet	
Year Built/Effect Yr Built	1970 /	Basement Description(s)	
# Of Stories		View	
Lot Size	142,441 SQFT / 3.2700 Acres	Pool	
Usable Lot Size		FirePlace	
Lot Depth		HT/AC	
Lot Width		Cooling Detail	
Square Feet	5,548	Heating Detail	
Square Ft 1st Flr		Roof Type	
Square Ft 2nd Flr		Construction Quality	
Square Ft 3rd Flr		Construction Type	
Additions - Square Feet		Exterior	
Parking		Foundation	
Parking Square Feet		Building Shape	
Now Page Grd	828-C7		
Map Page Grd	21-E5		

Tax Information

Assessor's Parcel Number / Tax ID	143-294-01	Assessor's Market Value	\$0
Alt Assessor's Parcel Number		Exemption	
Assessed Total	\$1,205,312	Tax Amount	\$14,534.98
Land Total	\$734,638	Tax Status	Current
Improvement	\$470,674	Year Delinquent	
Percent Improvement	39%	Tax Rate Area	21012

Sale Information

Last Sales Date		1st Loan Amount	
Document Number		First Loan Type	
Sale Value		2nd Loan Amount	
Last Transaction W/O \$	January 31, 1990	Cost / Square feet	
Last Transaction W/O \$ Doc	0000055541		
Title Company			

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Business Name: Boomers! (Privately-owned)
Parcel No.: 143-294-01
Address: 16800 Magnolia St., Fountain Valley 92708
Property Owner: John M. Huish Trust
Zoning: C2 (General Commercial)

Yrs of Operation: 7 Years

Business Hours: Sunday 10 AM – 9 PM
Mon – Thur 11 AM – 9 PM
Friday 11 AM – 11 PM
Saturday 10 AM – 11 PM

of Employees: 25 *

* Source: Manta.com. Manta is a business services website, covering large to small companies, their related industries and products.

Estimated level of
Income and Tax
Revenue: \$5 to \$10 Million *

* Source: Manta.com.

Identify similar
businesses
nearby:

According to YellowPages.com, there are about 5 similar businesses in a five (5) mile radius from within the city of Fountain Valley and nearby vicinity. These businesses are described as Miniature Golf.

Research the area
that each business
can be relocated to:

This business is a very complex relocation problem. Detailed interviews with the business owners will need to be conducted to identify suitable replacement sites (demographics) and address the various complex business relocation issues, including identifying the trade fixtures and equipment, including the Ferris Wheel, racing go-carts, water bumper boats, furnitures and small structures that are part of the miniature golf course, batting cage equipment, restaurant furnishings and electronic games, tenant improvements, personalty and realty issues. Reasons for these difficulties range from lack of properly

zoned replacement land available in a specific market area to specialized architecture required for businesses such as miniature golf courses.

The relocation requirements for the racing go-carts may become a "long lead item" due to obtaining certain permits, gaining zoning modifications and/or the relocation of movable hazardous materials such as gas, oil, old tires, and other hazardous fluids that must be relocated by hazardous material (hazmat) movers to ensure their safe transportation. Hazmat movers would determine the measures needed to protect the public from the dangers posed by these materials.

As of January 27, 2011, current market data* indicates there are (4) Vacant Land For Sale listings with a Commercial zoning, ranging from 3 to 4 acres of vacant land within the nearby vicinity and are listed below:

1. 1631 West Lincoln Avenue, Anaheim, CA - currently zoned for Industrial, according to the City of Anaheim Planning and Building Department. This parcel is situated similar to the subject's current location, adjacent to the (5) freeway and located at the major off-ramp of South Lincoln Avenue.
2. 1580 East Warner Avenue, Santa Ana, CA – currently zoned for Specific Development, according to the City of Santa Ana Planning and Building Department. This parcel is situated similar to the subject's current location, adjacent to the (55) freeway and located at the major off-ramp of Grand Avenue.
3. 17200 Goldenwest Street, Huntington Beach, CA – currently zoned for Commercial Office, according to the City of Huntington Beach Planning and Building Department. This parcel has major street frontage and similar lot size to Boomers!
4. 602 North Harbor Boulevard, Santa Ana, CA - currently zoned for Specific Plan, according to the City of Santa Ana Planning and Building Department. This parcel has major street frontage and similar lot size to Boomers!

Information about the zoning for each parcel was verified with each City Hall's Planning and Building Department. A request can be made to change the zoning on the available parcel within the

city if the proposed use is not permitted under the current zoning. However, this process can take up to anywhere from four (4) to six (6) months because it requires approval from the Planning Commission Board & the City Council and must pass the Environmental Review. Application for a Conditional Use Permit (CUP) will be required by the reviewing agency for the relocation of Boomers!

* Source: LoopNet.com is an online commercial real estate website providing products and services tailored to the national and local needs of the commercial investment industry. Listings available on LoopNet include all commercial real estate property categories such as commercial office space for lease and for sale, multifamily apartments, retail space and land for sale.

EXCLUSIVE LAND OFFERING - ANAHEIM 5.84 ACRES

1631 W. Lincoln Ave, Anaheim, CA 92801

PROPERTY FEATURES

LOT SIZE	5.84 acres 254,631 sf.
LEASABLE BLDG AREA	18,784 sf.
APN(s)	072-110-21 072-110-50
ZONING	Industrial Commercial
GENERAL PLAN	Commercial
FRONTAGE	500 ft. along Interstate 5
EXPOSURE	*250,000 cars per day
PRICE	\$7,675,000



Scott Anastasi Realty is pleased to present for sale, 5.84 acres of land located at 1631 W. Lincoln Ave., Anaheim, CA. The site is comprised of two parcels totaling 254,631 sf, and boasts over 500 feet of frontage along the I-5 Freeway. Neighbors surrounding the property include multiple nationwide retailers, providing an excellent opportunity for commercial development. **Seller looking at all offers.**

DON BUTTS

don@scottanastasierealty.com

SCOTT ANASTASI

scott@scottanastasierealty.com

511 Torrance Blvd. Suite 111
Redondo Beach, CA. 90277

310.540.8600 office
310.540.8686 fax

Rear view from Euclid overpass - Vacant Parcel



Front view from Lincoln Ave. 'Rapid Set' Building



SCOTT ANASTASI

The information offered is believed to be from a reliable source, however buyer must independently verify the accuracy of all information through personal inspection and with the appropriate professionals. The Seller and Sales Representative make no expressed or implied representation as to the accuracy of the information and strongly encourage Buyer to independently verify its accuracy and completeness.

Former Crazy Horse Saloon Site



1580 E Warner Ave
Santa Ana, CA 92705

County: Orange
Property Type: Land
Retail (land)
Price: \$4,800,000

Unit #	Price	Price Per	Size	Min Divisible	Maximum Contiguous	Unit Type
	\$4,800,000	(\$1,702,128/Acre)	2.82 Acres			Retail (land)

Property Description

Contact Broker For Marketing Package. Rare development opportunity, freeway visibility and easy access, 508,000 estimated cars a day utilize the ON& OFF Ramps of the 55 Freeway at Dyer Road ALONE (based on 2008 CalTrans peak month data) Price is flexible for an all cash quick close deal. 3 parcels in total, are being marketed as a package deal but can be purchased separately, please inquire.

Location Description

55 Freeway take the Dyer Rd exit. Located at Warner & Grand Ave

Created: 1/26/2011

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Former Crazy Horse Saloon Site

Debt & Equity Information

No Debt & Equity Information provided.

Contact

Mark Dorbayan

Cres Commercial & Premier Realty Associates

(310) 447-2139

Created: 1/26/2011

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This information comes from users and sources believed to be reliable, but is not guaranteed.

17200 Goldenwest Street



17200 Goldenwest Street
Huntington Beach, CA 92647

County: Orange
Property Type: Land
Lot Size: Commercial/Other (land)
Price: 3.37 Acres
Not Disclosed

Unit #	Price	Price Per	Size	Min Divisible	Maximum Contiguous	Unit Type
	[Not Disclosed]		3.37 Acres			Commercial/Other (land)

Property Description

Land For Sale. Rare Infill Site w/ 576 feet of Major Street Frontage. Suitable for Office, Medical, Retail, Church, School, or other uses. Vacant. Sale Price TBD.

Location Description

Located just south of Home Depot at the Warner/Goldenwest intersection.

Created: 1/26/2011

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This information comes from users and sources believed to be reliable, but is not guaranteed.

17200 Goldenwest Street

Debt & Equity Information

No Debt & Equity Information provided.

Contact

Bob Goodmanson

CB Richard Ellis

(949) 725-8581

Created: 1/26/2011

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This information comes from users and sources believed to be reliable, but is not guaranteed.

Santa Ana - 3 Acres



602 N. Harbor Blvd.
Santa Ana, CA 92703

County: Orange
Property Type: Land
Commercial/Other (land)
Price: \$2,600,000

Unit #	Price	Price Per	Size	Min Divisible	Maximum Contiguous	Unit Type
	\$2,600,000	(\$849,673/Acre)	3.06 Acres			Commercial/Other (land)

- Excellent Visibility / Accessibility
- Large Square Parcel
- A Redevelopment Agency That Wants to Work With You
- Bank Owned
- Flexible Zoning

Property Description

Nearly 400 feet of frontage on Harbor Blvd. - one of Santa Ana's busiest commercial corridors. This is one of the few vacant parcels on Harbor Blvd. and is the ideal site for a new mixed-use / multi-family project. The Santa Ana Redevelopment Agency wants to work with you (funds may be available). Site is currently leased to a car dealership for \$8,500/month.

Location Description

602 N. Harbor Blvd., Santa Ana 92703. Just north of W. 5th Street on the west side of N. Harbor Blvd. in the City of Santa Ana, Orange County. Located on Harbor Blvd., the site is also within close proximity to the major thoroughfares of 1st Street and the Garden Grove (22) Freeway.

Zoning Description

N. Harbor Specific Plan (SP2)

Created: 1/26/2011

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This information comes from users and sources believed to be reliable, but is not guaranteed.

Santa Ana - 3 Acres

Debt & Equity Information

No Debt & Equity Information provided.

Contact

Bill Korek
Deanne Boublis
Ben Wilson

Korek Land Company, Inc.
Korek Land Company, Inc.
Korek Land Company, Inc.

(818) 787-3077
(818) 787-3077
(818) 787-3077

Created: 1/26/2011

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This information comes from users and sources believed to be reliable, but is not guaranteed.

Appendix C

Ramp Closure Study

RAMP CLOSURE STUDY

For the San Diego Freeway (I-405) Improvement Project

Project Description

The California Department of Transportation—District 12 (Department or Caltrans), in cooperation with the Orange County Transportation Authority (OCTA), proposes to improve mainline freeway and interchanges on Interstate 405 (I-405) in Orange County from Postmile (PM) 9.3 to PM 24.1. The proposed project would relieve congestion and improve operational efficiency on I-405 between SR-73 and I-605 in Orange County.

Within the limits of the proposed project, I-405 is a controlled-access highway facility with a fenced ROW, separated by grade from crossing traffic, with vehicular access limited to interchanges. Within the project area, I-405 consists of 8 to 12 mixed-flow general purpose (GP) lanes and two high-occupancy vehicle (HOV) lanes.

Project Alternatives

Common Design Features of the Build Alternatives

Build Alternatives 1, 2, and 3 would include the following features:

- One GP lane would be added in each direction of I-405 from Euclid Street to the I-605 interchange.
- Travel lanes on the I-405 mainline would be 12-ft-wide, and right side shoulders would be 10-ft- wide.
- The pedestrian bridge and local street overcrossings proposed for complete replacement under Alternatives 1, 2, and 3 are the following:
 - Ward Street
 - Talbert Avenue
 - Brookhurst Street
 - Slater Avenue
 - Bushard Street
 - Warner Avenue
 - Magnolia Street
 - Pedestrian overcrossing near Heil Avenue

- Newland Street
 - Edinger Avenue
 - McFadden Avenue
 - Bolsa Avenue
 - Goldenwest Street
 - Edwards Street
 - Westminster Boulevard
 - Springdale Street
 - Bolsa Chica Road
- The Euclid Street/Ellis Avenue undercrossing bridge would be modified and extended.
 - Two railroad overheads would be modified and extended.
 - Each build alternative would include interchange reconfigurations at Euclid Street, Ellis Avenue, Brookhurst Street, Magnolia Street, Warner Avenue, Beach Boulevard, and Westminster Boulevard.
 - Maintenance vehicle pullouts (MVP) would be included in various locations under each build alternative.

Unique Features of Build Alternatives

Alternative 1 – Add One GP Lane in Each Direction

Alternative 1 would add a single GP lane in each direction of I-405 from Euclid Street to the I-605 interchange.

Alternative 1 would provide a full standard highway cross section, with 12-foot[ft]-wide mainline travel lanes as well as 10-ft-wide shoulders on both left (inside) and right (outside) sides in both directions.

Alternative 2 – Add Two GP Lanes in Each Direction

Alternative 2 would add one GP lane in each direction of I-405 from Euclid Street to the I-605 interchange (as in Alternative 1), plus add a second GP lane in the northbound direction from Brookhurst Street to the SR-22/7th Street interchange and a second GP lane in the southbound direction from the Seal Beach Boulevard on-ramp to Brookhurst Street.

Alternative 2 would provide a full standard highway cross section, with 12-ft-wide mainline travel lanes and shoulders on the left and right sides in both directions. Right side (outside)

shoulders would be 10-ft-wide, while left side (inside) shoulders would have a maximum width of 10 ft with a provision for a widened left shoulder for HOV enforcement areas under consideration.

Alternative 3 – Express Facility

Alternative 3 would add one GP lane in each direction of I-405 from Euclid Street to the I-605 interchange (as in Alternatives 1 and 2), plus add a tolled express lane in each direction of I-405 from SR-73 to I-605. The tolled express lane would be placed beside the existing HOV lane in each direction. The existing HOV lanes and new toll lanes would be managed jointly as an Express Lane Facility with two lanes in each direction.

Alternative 3 would provide a full standard highway cross section, with 12-ft-wide mainline travel lanes and shoulders on the left and right sides in both directions. Right side (outside) shoulders would be 10-ft-wide, while left side (inside) shoulders would have a maximum width of 10 ft with a provision for a widened left shoulder for enforcement areas under consideration. The joint HOV/toll lane Express Lane Facility would be separated from the GP lanes by a 1 to 4 ft buffer.

No Build (No Action) Alternative

The No Build Alternative provides a “baseline” for comparing impacts associated with the build alternatives because environmental review must consider the effects of not implementing the proposed project. The Project Baseline conditions under the No Build Alternative would provide no additional lanes or interchange improvements to the I-405 corridor. The project area would continue to operate with no additional improvements and would not achieve the project’s stated purpose and need

Study Purpose

The purpose of this Ramp Closure Study is to evaluate the anticipated project effects resulting from temporary long-term closure of ramps, as required by the Caltrans Project Development Procedures Manual Chapter 8 and in accordance with the Caltrans Standard Environmental Reference. Within the project area, 59 local service interchange ramps have been identified and are shown in Table 1. Most interchange ramps are expected to be open for traffic during construction with periodic closure at night, during the weekend (55-hour closure), or for a period less than 10 days. Periodic temporary closure of these ramps is not anticipated to result in a substantial inconvenience to the traveling public. Interchanges along I-405 are spaced approximately 1 mile apart, such that there are nearby alternate access points to and from the

freeway and no two consecutive/adjacent off-ramps or two consecutive/adjacent on-ramps in the same direction will be closed concurrently.

Table 1: Local Service Interchange Ramps and Anticipated Closure within the I-405 Improvement Project

Ramp Location	Ramp	Long-Term Ramp Closure (10 or More days)		Ramp AADT ¹	Duration of Ramp Closure
		Yes	No		
South Coast Drive	NB Off-Ramp	X		9,550*	up to 30 days
Fairview Road	NB Off-Ramp	X		24,000*	up to 30 days
	NB On-Ramp	X		8,800	up to 30 days
	SB On-Ramp		X		<10 Days
	SB Off-Ramp	X		10,400	up to 30 days
Susan Street	NB Off-Ramp		X		<10 Days
Harbor Boulevard	NB On-Ramp	X		7,700	up to 30 days
	SB On-Ramp	X		10,500	up to 30 days
	SB Loop On-Ramp		X		<10 Days
	SB Off-Ramp		X		<10 Days
Hyland Avenue	NB On-Ramp		X		<10 Days
Euclid Street	NB Off-Ramp		X		<10 Days
	NB On-Ramp		X		<10 Days
	SB Loop On-Ramp		X		<10 Days
	SB Off-Ramp		X		<10 Days
Talbert Ave	SB On-Ramp	X		13,400	up to 30 days
Brookhurst Street	NB Off-Ramp		X		<10 Days
	NB Loop On-Ramp		X		<10 Days
	NB On-Ramp		X		<10 Days
	SB Loop On-Ramp		X		<10 Days
	SB Off-Ramp		X		<10 Days
Warner Avenue	NB Loop Off-Ramp		X		<10 Days
	NB On-Ramp		X		<10 Days

Ramp Location	Ramp	Long-Term Ramp Closure (10 or More days)		Ramp AADT ¹	Duration of Ramp Closure
		Yes	No		
Warner Avenue	SB On-Ramp	X		13,000	up to 30 days
	SB Loop Off-Ramp		X		<10 Days
Magnolia Street	NB Off-Ramp		X		<10 Days
	NB Loop On-Ramp		X		<10 Days
	NB On-Ramp		X		<10 Days
	SB Loop On-Ramp		X		<10 Days
	SB Off-Ramp	X		10,100	up to 30 days
Edinger Avenue	SB On-Ramp		X		<10 Days
Beach Boulevard	NB Off-Ramp		X		<10 Days
	NB Loop On-Ramp		X		<10 Days
	NB On-Ramp		X		<10 Days
	SB On-Ramp		X		<10 Days
	SB Off-Ramp		X		<10 Days
Bolsa Avenue	NB Off-Ramp		X		<10 Days
	SB On-Ramp	X		6,700*	up to 30 days
	SB Loop Off-Ramp		X		<10 Days
Goldenwest Street	NB On-Ramp		X		<10 Days
	SB Loop On-Ramp		X		<10 Days
	SB Off-Ramp		X		<10 Days
Westminster Boulevard	NB Loop Off-Ramp		X		<10 Days
	NB On-Ramp		X		<10 Days
	SB On-Ramp	X		6,200*	up to 30 days
	SB Loop Off-Ramp		X		<10 Days
Springdale Street	SB Off-Ramp		X		<10 Days
Garden Grove Boulevard	NB Off-Ramp		X		<10 Days

Ramp Location	Ramp	Long-Term Ramp Closure (10 or More days)		Ramp AADT ¹	Duration of Ramp Closure
		Yes	No		
Bolsa Chica Road	SB On-Ramp		X		<10 Days
Seal Beach Boulevard	SB Off-Ramp	X		10,500*	up to 30 days
	NB Off-Ramp		X		<10 Days
Old Ranch Parkway	NB On-Ramp		X		<10 Days
	SB On-Ramp		X		<10 Days
	SB Off-Ramp		X		<10 Days
	WB SR-22 R1		X		<10 Days

¹ 2009 Annual Average Daily Traffic Ramp Volumes on California State Freeways: I-405 in Orange County (<http://traffic-counts.dot.ca.gov/09ramps/Dist122009ramps.pdf>). AADTs are shown only for ramps.

*No Data provided for 2009. Data represents largest reported ramp volume

As shown in Table 1 above, 12 temporary long-term ramp closures have been identified and are evaluated within this Ramp Closure Study. These ramps will require complete closure for a period up to 30 days during ramp reconstruction because the new ramp alignments will occupy the current ramp locations, and construction access and right-of-way requirements preclude use while under construction. Interchange ramps that are expected to require 10 to 30 days of closure include the following:

- South Coast Drive Northbound (NB) off-ramp
- Fairview Road NB off-ramp
- Fairview Road NB on-ramp
- Fairview Road Southbound (SB) off-ramp
- Harbor Boulevard NB loop on-ramp
- Harbor Boulevard SB on-ramp
- Talbert Avenue SB on-ramp
- Warner Avenue SB on-ramp
- Magnolia Street SB off-ramp
- Bolsa Avenue SB on-ramp
- Westminster Boulevard SB on-ramp
- Bolsa Chica Road SB off-ramp

This Ramp Closure Study will evaluate the anticipated project effects on businesses (and other services) and commuters dependent on access via the previously identified temporary long term ramp closures and recommend measures to minimize related effects to the community. No ramps are expected to require closure for more than 30 days.

Study Procedures

The Department *Environmental Handbook, Volume 4, Community Impact Assessment* provides the following guidelines that should be considered in the preparation of ramp closure studies:

- The geographical scope of the Ramp Closure Study should generally be limited to businesses within one half-mile of the ramp unless compelling reasons for a larger study are evident
- The study should determine the degree to which businesses are dependent on freeway access.
- The capacity of a business to withstand a disruption to its operations depends on the types of goods and services provided, the resources of the business, and its cash flow. Generally, large businesses, and those that serve a large regional market, are more likely to be able to afford a temporary interruption in existing access.
- Mitigation measures such as the use of staging, expediting construction, building temporary ramps and detours, signing, and closely working with businesses should be considered to minimize or avoid the effects on local businesses.

Description of Prolonged Closure Sites and Proposed Detour Routes

South Coast Drive Northbound Off-Ramp

Land Uses: The location of the I-405 South Coast Drive NB off-ramp is indicated on Sheet 1 of Attachment A. The area along South Coast Drive is zoned commercial, with residential zones farther north within a half mile of the off-ramp. Immediately northeast of the off-ramp is the Metro Pointe retail center in the City of Costa Mesa.

Major Activity Centers: There are two major activity centers near the South Coast Drive NB off-ramp: Metro Pointe retail center and South Coast Plaza mall. Metro Pointe contains a movie theater, retail stores, and restaurants. South Coast Plaza includes a variety of stores and restaurants.

Freeway-Dependent Businesses: There are no businesses that rely solely on freeway traffic, as they primarily serve local clientele that utilize surface streets to access the businesses.

Additionally, multiple freeway off-ramps serve the area so the closure of one ramp would not result in a substantial loss of business.

Commercial Developments: Most of the area surrounding South Coast Drive is commercial. Office buildings line the north side of the road, while Metro Pointe runs along the south side. Farther northeast, accessible directly from South Coast Drive, is South Coast Plaza, a large mall, also in the City of Costa Mesa.

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternative 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported Average Annual Daily Traffic (AADT) data provided in Table 1, the 9,550 AADT for the off-ramp would be directed to the detour route identified below or to other interchanges and local streets. The anticipated detour route is indicated with arrows on Sheet 1 of the attached exhibit. The proposed detour route is as follows:

- NB I-405 to NB Fairview Road, to eastbound (EB) South Coast Drive

The proposed detour route is approximately 1.4 miles in length and would result in an increased travel time of approximately 3 minutes to the intersection of the South Coast Drive NB I-405 off-ramp and South Coast Drive.

Fairview Road Northbound Off-Ramp

Land Uses: The location of the NB Fairview Road off-ramp is indicated on Sheet 2 of Attachment A. Fairview Road north of I-405 is bordered on the east primarily by residential and on the west by a combination of commercial and industrial land uses, as well as Segerstrom Farm used for agricultural purposes that is zoned commercial. Fairview Road south of I-405 is bordered on both sides by residential areas, with the nearest commercial area 0.5 mile south of the freeway at the intersection of Fairview Road and Baker Street.

Major Activity Centers: The closest major activity centers are the Metro Pointe retail center and South Coast Plaza, both in the City of Costa Mesa.

Freeway-Dependent Businesses: Businesses in the surrounding area serve mostly local clientele and are therefore not freeway-dependent.

Commercial Developments: The Fairview Road NB off-ramp is surrounded mostly by residential areas, except for Segerstrom Farm, an area of land used for agricultural purposes and currently zoned commercial, which is located north of I-405, and another area north of South Coast Drive that includes an Automobile Club of California location.

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternative 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported AADT data provided in Table 1, the 24,000 AADT for the off-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The anticipated detour route is indicated with arrows on Sheet 2 of the attached exhibit. The proposed detour routes are as follows:

- NB I-405 to NB Susan Street, to EB South Coast Drive, to Fairview Road
- NB I-405 to South Coast Drive, to WB South Coast Drive, to Fairview Road

The first proposed detour route is approximately 1.25 miles in length and would result in an increased travel time of approximately 2 minutes to the intersection of South Coast Drive and Fairview Road, and the second proposed detour route is approximately 0.75 miles in length and would result in an increased travel time of approximately 1.5 minutes to the intersection of South Coast Drive and Fairview Road .

Fairview Road Northbound On-Ramp

Land Uses: The location of the NB Fairview Road on-ramp is indicated on Sheet 3 of Attachment A. Fairview Road north of I-405 is bordered on the east primarily by residential and on the west by a combination of commercial and industrial land uses, as well as Segerstrom Farm, used for agricultural purposes that currently is zoned commercial.

Major Activity Centers: The closest major activity centers are the Metro Pointe retail center and South Coast Plaza, both in the City of Costa Mesa.

Freeway-Dependent Businesses: Businesses in the surrounding area serve mostly local clientele and are therefore not freeway-dependent.

Commercial Developments: Segerstrom Farm is located north of I-405 along Fairview Road. Another commercial area west of Fairview Road and north of South Coast Drive features an Automobile Club of California location. Besides this, the Fairview Road NB on-ramp is surrounded by residential areas.

Commercial developments lining Harbor Boulevard south of I-405 may benefit from the anticipated detour route as drivers are directed to exit the freeway at Harbor Boulevard. Strip malls containing businesses such as In-N-Out Burger, 7-Eleven, and McDonalds, stretch along Harbor Boulevard from I-405 south beyond Baker Street (approximately 0.6 mile).

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternative 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most

recently reported AADT data provided in Table 1, the 8,800 AADT for the on-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The anticipated detour route is indicated with arrows on Sheet 3 of the attached exhibit. The two proposed detour routes are as follows:

- From Fairview, to westbound (WB) Baker Street, to NB Harbor Boulevard, to NB I-405 on-ramp
- From Fairview to WB South Coast Drive, to NB I-405 on-ramp at Hyland Avenue

The proposed Baker Street detour route is approximately 1.3 miles in length and would result in an increased travel time of approximately 4 minutes to the Harbor Boulevard NB I-405 on-ramp. The proposed South Coast Drive detour route is approximately 1 mile in length and would result in an increased travel time of approximately 3 minutes to the Hyland Avenue NB I-405 on-ramp.

Fairview Road Southbound Off-Ramp

Land Uses: The location of the Fairview Road SB off-ramp is indicated on Sheet 4 of Attachment A. Fairview Road south of I-405 is bordered on both sides by residential areas. Fairview Road north of I-405 is bordered on the east primarily by residential and on the west by a combination of commercial and industrial land uses, as well as Segerstrom Farm, used for agricultural purposes that is zoned commercial.

Major Activity Centers: The closest major activity centers are the Metro Pointe retail center and South Coast Plaza, both in the City of Costa Mesa.

Freeway-Dependent Businesses: Businesses in the surrounding area serve mostly local clientele and are therefore not freeway-dependent.

Commercial Developments: The Fairview Road SB off-ramp is surrounded by residential areas and is also near Segerstrom Farm.

Commercial developments lining Harbor Boulevard south of I-405 may benefit from the anticipated detour route as drivers exit the freeway at Harbor Boulevard. Strip malls containing businesses such as In-N-Out Burger, 7-Eleven, and McDonalds, stretch along Harbor Boulevard from I-405 south beyond Baker Street (approximately 0.6 mile).

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternative 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported AADT data provided in Table 1, the 10,400 AADT for the off-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The

anticipated detour route is indicated with arrows on Sheet 4 of the attached exhibit. The proposed detour routes are as follows:

- From SB I-405, exit Harbor Boulevard, to SB Harbor Boulevard, to EB Baker Street, to Fairview Road.
- From SB I-405, exit Harbor Boulevard, to NB Harbor Boulevard, to EB South Coast Drive, to Fairview Road.

The first proposed detour route is approximately 1.5 miles in length and would result in an increased travel time of approximately 3.5 minutes to the intersection of Baker Street and Fairview Road. The second proposed detour route is approximately one mile in length and would result in an increased travel time of apparently 1.7 minutes to the intersection of South Coast Drive and Fairview Road.

Harbor Boulevard Northbound Loop On-Ramp

Land Uses: Harbor Boulevard NB on-ramp is shown on Sheet 5 of Attachment A. The area around the on-ramp is predominantly commercial.

Major Activity Centers: The closest major activity center is the Metro Point Mall, located less than a mile and a half east of the on-ramp.

Freeway-Dependent Businesses: Businesses in the surrounding area serve mostly local clientele and are therefore not freeway-dependent.

Commercial Developments: The Harbor Boulevard NB on-ramp is surrounded by commercial developments. North of I-405 to the west of Harbor Boulevard, several strip malls line the road 0.5 mile north of the freeway. Whittier Law School is located at the corner of West Sunflower Avenue and Harbor Boulevard. An Ikea furniture store and several other small businesses and offices are located north of I-405 to the east of Harbor Boulevard. The commercial developments would not lose drive-by traffic as a result of the detour, as traffic will still be diverted on Harbor Boulevard to South Coast Drive.

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternative 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported AADT data provided in Table 1, the 7,700 AADT for the on-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The anticipated detour route is indicated with arrows on Sheet 5 of the attached exhibit. The proposed detour route is as follows:

- Harbor Boulevard to WB South Coast Drive, to South Coast Drive I-405 NB on-ramp at Hyland Avenue

The proposed detour route is approximately 0.75 miles in length and would result in an increased travel time of approximately 2 minutes to the South Coast Drive NB I-405 on-ramp.

Harbor Boulevard Southbound On-Ramp

Land Uses: The NB Harbor Boulevard SB I-405 on-ramp is shown on Sheet 6 of Attachment A. The predominant land designations for the area surrounding the on-ramp are commercial and residential.

Major Activity Centers: There are no major activity centers within a half mile of the on-ramp.

Freeway-Dependent Businesses: Businesses in the surrounding area serve mostly local clientele and are therefore not freeway-dependent.

Commercial Developments: Commercial developments line Harbor Boulevard south of I-405. To the west, strip malls containing businesses such as In-N-Out Burger, 7-Eleven, and McDonalds stretch from I-405 south beyond Baker Street (approximately 0.6 mile). Adjacent to I-405 to the east of Harbor Boulevard, a large Car Max is located along Gisler Avenue. A Chevron Station is located at the corner of Gisler Avenue and Harbor Boulevard, with strip malls containing food establishments and House of Luxuries car dealership, located farther south.

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternative 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported AADT data provided in Table 1, the 10,500 AADT for the on-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The anticipated detour route is indicated with arrows on Sheet 6 of the attached exhibit. The proposed detour routes are as follows:

- Harbor Boulevard, to EB South Coast Drive, to SB Fairview Road, to Fairview Road SB I-405 on-ramp
- Harbor Boulevard, to EB Baker Street, to NB Fairview Road, to Fairview Road SB I-405 on-ramp

The proposed South Coast Drive detour route is approximately 1.75 miles in length and would result in an increased travel time of approximately 5.5 minutes to the Fairview Road

SB I-405 on-ramp. The proposed Baker Street detour Route is approximately 1.25 miles in length and would result in an increased travel time of approximately 3.5 minutes to the Fairview Road I-405 on-ramp.

Talbert Avenue Southbound On-Ramp

Land Uses: The Talbert Avenue SB on-ramp is indicated on Sheet 7 of Attachment A. Land surrounding the on-ramp is predominantly designated residential and commercial, with some industrial usage adjacent to I-405 bordered by Ward Street on the west and Ellis Avenue on the south. Additionally, the Orange County Sanitation District and Orange County Water District are located along the south side of Ellis Avenue.

Major Activity Centers: There are no major activity centers within a half mile of the Talbert Avenue SB on-ramp.

Freeway-Dependent Businesses: Businesses in the surrounding area serve mostly local clientele and are therefore not freeway-dependent.

Commercial Developments: Along the north side of Talbert Avenue adjacent to I-405 is a commercial development that includes a Black Angus Steakhouse, L.A. Fitness, and other small businesses. On the south side of Talbert Avenue is another commercial development with several restaurants and shops. As traffic is diverted down Brookhurst Street to Ellis Avenue during the closure, both of these commercial developments would retain the drive-by traffic that would have been generated from use of the Talbert Avenue SB on-ramp. The businesses along Ellis Avenue may benefit from traffic diverted to the Ellis Avenue/Euclid Street SB I-405 on-ramp.

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternatives 1, 2, and 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported AADT data provided in Table 1, the 13,400 AADT for the on-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The anticipated detour route is indicated with arrows on Sheet 7 of the attached exhibit. The proposed detour route is as follows:

- From Talbert Avenue, to SB Brookhurst Street, to EB Ellis Avenue, to Ellis Avenue/Euclid Street SB I-405 on-ramp

The proposed detour route is approximately 1.5 miles in length and would result in an increased travel time of approximately 4.5 minutes to the Ellis Avenue/Euclid Street SB I-405 on-ramp.

Warner Avenue Southbound On-Ramp

Land Uses: The Warner Avenue SB on-ramp is indicated on Sheet 8 of Attachment A. The primary land use designations in the area within a half mile of the on-ramp are residential and commercial.

Major Activity Centers: There are no major activity centers within a half mile of the on-ramp.

Freeway-Dependent Businesses: Businesses in the surrounding area serve mostly local clientele and are therefore not freeway-dependent.

Commercial Developments: Adjacent to the Warner Avenue SB on-ramp is a commercial center on the north side of Warner Avenue that includes businesses such as Boomers, Sports Authority, and a roller skating rink, as well as a Days Inn & Suites. On the south side of Warner Avenue there is another center featuring restaurants, a grocery store, bank, and other businesses. These businesses primarily serve local consumers from Huntington Beach, Fountain Valley, and the surrounding areas. Traffic that would pass by the commercial developments en route to take I-405 from the Warner Avenue SB I-405 on-ramp would still pass the businesses using the proposed detour route.

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternatives 1, 2, and 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported AADT data provided in Table 1, the 13,000 AADT for the on-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The anticipated detour route is indicated with arrows on Sheet 8 of the attached exhibit. The proposed detour route is as follows:

- Warner Avenue, to SB Magnolia Street, to EB Talbert Avenue, to SB I-405 on-ramp
- The proposed detour route is approximately 2.1 miles in length and would result in an increased travel time of approximately 6.5 minutes to the Talbert Avenue SB I-405 on-ramp.

Magnolia Street Southbound Off-Ramp

Land Uses: The Magnolia Street SB off-ramp is shown on Sheet 9 of Attachment A. Primary land uses within a half mile of the exit are residential and commercial.

Major Activity Centers: The nearest major activity center is Bella Terra, a retail center that includes restaurants, shops, grocery stores, and a 24-Hour Fitness.

Freeway-Dependent Businesses: No businesses are dependent on freeway traffic from the Magnolia Street SB off-ramp. Bella Terra, the closest major retail center, is approximately 1.4 miles northwest of the Magnolia Street off-ramp, accessible from the Beach Boulevard SB off-ramp, which would not be closed for more than 9 days. The traffic diversion to the Beach Boulevard SB I-405 exit could potentially benefit the businesses in and around Bella Terra due to detour traffic.

Commercial Developments: There are sporadic commercial developments surrounding the Magnolia Street SB off-ramp, with the largest concentration located along the east side of Magnolia Street, as well as along Beach Boulevard, approximately one mile away from the off-ramp. The commercial area adjacent to the Magnolia Street SB off-ramp includes a Boomers, Sports Authority, and a skating rink, and relies heavily on local traffic. The temporary detour routes during the prolonged closure of the off-ramp would not result in a substantial effect on business patronage.

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternatives 1, 2, and 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported AADT data provided in Table 1, the 10,100 AADT for the off-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The anticipated detour routes are indicated with arrows on Sheet 9 of the attached exhibit. The proposed detour route is as follows:

- From SB I-405, exit SB Beach Boulevard, to EB Warner Avenue, to Magnolia Street
- From SB I-405, exit SB Beach Boulevard, to EB Edinger Avenue, to Magnolia Street

The first proposed detour route is approximately 2.5 miles in length and would result in an increased travel time of approximately 5.5 minutes to the intersection of Warner Avenue and Magnolia Street. The second proposed detour route is approximately 1.5 miles in length and would result in an increased travel time of approximately 2.5 minutes to the intersection of Edinger Avenue and Magnolia Street.

Bolsa Avenue Southbound On-Ramp

Land Uses: The location of the SB Bolsa Avenue on-ramp is indicated on Sheet 10 of Attachment A. Bolsa Avenue south of I-405 is bordered on the south primarily by residential and on the north by a combination of residential and commercial land uses.

Major Activity Centers: The Westminster Mall is the nearest major activity center.

Freeway-Dependent Businesses: Businesses in the surrounding area serve mostly local clientele and are therefore not freeway-dependent.

Commercial Developments: Flanked by the intersections of Bolsa Avenue/Edwards Street and Bolsa Avenue/Goldenwest Street, is the Westminster Mall, which houses retail shops, restaurants, and other specialty stores. Westminster Mall serves the City of Westminster and surrounding communities, but its location adjacent to I-405 results in some freeway trips. However, because Westminster Mall is accessible from multiple off-ramps, and I-405 is accessible at multiple points surrounding the area, the center would not suffer a substantial impact due to the Bolsa Avenue SB on-ramp closure.

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternatives 1, 2, and 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported AADT data provided in Table 1, the 6,700 AADT for the on-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The anticipated detour route is indicated with arrows on Sheet 10 of the attached exhibit. The proposed detour route is as follows:

- From Bolsa Ave, to SB Goldenwest Street, to EB Edinger Avenue, to I-405 SB on-ramp

The proposed detour route is approximately 2.1 miles in length and would result in an increased travel time of approximately 6.25 minutes to Edinger Avenue SB I-405 on-ramp.

Westminster Boulevard Southbound On-Ramp

Land Uses: The Westminster Boulevard Southbound on-ramp is shown on Sheet 11 of Attachment A. The area around the on-ramp on the south side of I-405 is primarily designated for residential land uses, with industrial land uses along the west side of Springdale Street, and commercial uses to the west along Edwards Street.

Major Activity Centers: The Westminster Mall is the closest major activity center, bordered on the northeast by I-405, on the south by Bolsa Avenue, and on the west by Edwards Street.

Freeway-Dependent Businesses: There are no freeway-dependent businesses in the area. The Westminster Mall may benefit from the detour, which will divert traffic to Bolsa Avenue. The resultant increase in drive-by traffic could potentially result in increased business.

Commercial Developments: The only commercial developments near the Westminster Boulevard SB on-ramp are the shops at and around the Westminster Mall, as well as some businesses along Westminster Boulevard. Neither commercial area would be substantially affected by the detour route as there are several alternate routes between the freeway and the mall.

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternatives 1, 2, and 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported AADT data provided in Table 1, the 6,200 AADT for the on-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The anticipated detour routes are indicated with arrows on Sheet 11 of the attached exhibit. The proposed detour routes are as follows:

- From Westminster Boulevard, to SB Goldenwest Street, to EB Bolsa Avenue to SB I-405 on-ramp
- From Westminster Boulevard, to SB Springdale Street, to EB Bolsa Avenue, to SB I-405 on-ramp

The proposed Goldenwest Street detour route is approximately 1.5 miles in length and would result in an increased travel time of approximately 4.75 minutes to the Bolsa Avenue SB I-405 on-ramp. The proposed Springdale Street detour route is approximately 2.0 miles in length and would result in an increased travel time of approximately 6.0 minutes to the Bolsa Avenue SB I-405 on-ramp.

Bolsa Chica Road Southbound Off-Ramp

Land Uses: The Bolsa Chica SB off-ramp is shown on Sheet 12 of Attachment A. The predominant land uses in the surrounding areas are residential and military installations. The Seal Beach Naval Weapons Station is located west of the off-ramp, bounded by Bolsa Chica Road on the east, Edinger Avenue on the south, Seal Beach Boulevard on the west, and I-405 on the north.

Major Activity Centers: There are no major activity centers within a half mile of the off-ramp.

Freeway-Dependent Businesses: Businesses in the surrounding area serve mostly local clientele and are therefore not freeway-dependent.

Commercial Developments: There is one commercial area along Garden Grove Boulevard between I-405 and SR-22. This commercial area serves primarily local clientele and is

accessible by the EB SR-22 Valley View off-ramp, which will not experience a closure in excess of 9 days.

Ramp Closure Duration and Detour Routes: This ramp closure would occur under Build Alternatives 1, 2, and 3. The ramp closure is anticipated to last from 10 to 30 days. Based on the most recently reported AADT data provided in Table 1, the 10,500 AADT for the off-ramp would be diverted to the detour route identified below or to other interchanges and local streets. The anticipated detour route is indicated with arrows on Sheet 12 of the attached exhibit. The proposed detour route is as follows:

- From SB I-405, to EB SR-22, to Valley View Street Exit, to WB Garden Grove Boulevard, to SB Valley View Street, to Bolsa Chica Road

The proposed detour route is approximately 0.75 miles in length and would result in an increased travel time of approximately 1 minute to the intersection of Valley View Street and Garden Grove Boulevard.

Conclusion

The basis for the conclusions below is based on the following assumptions and will be incorporated into the Environmental Document and/or TMP strategies as required. The assumptions identified below are all components of the TMP strategies discussed in detail below:

- Business access will be maintained at all times during construction;
- Preliminary detours routes for all long-term closures have been identified to accommodate access changes lost due to the temporary long-term closures. Detour routes represent a short term inconvenience to both the traveling public but do not represent a substantial burden to either businesses (limited access) or the traveling public (substantially longer or indirect travel)
- Periodic temporary closures of ramps, occasional and less than 10 days, are not anticipated to result in a substantial inconvenience to the traveling public. Interchanges along I-405 are spaced approximately 1 mile apart, such that there are nearby alternate accesses to and from the freeway and the adjacent communities and businesses. No two consecutive/adjacent off-ramps or two consecutive/adjacent on-ramps in the same direction will be closed concurrently.
- Ramps that provide access immediately adjacent to the South Coast Plaza (South Coast Drive NB off-ramp), Bella Terra Mall (Beach Boulevard off-ramps) or the Westminster Mall (Bolsa Avenue NB and Goldenwest SB off-ramps) will not be closed from November 1st to Jan 31st.

The affected communities in the I-405 Improvement Project area have reached build-out and have little or no remaining vacant land available for development; therefore, infill redevelopment is the main contributor to growth in the area. Within the cities along the I-405 Project alignment, the primary land uses are commercial, residential, and industrial, with large areas dedicated to military use in Seal Beach and agriculture in Costa Mesa. Heavy concentrations of commercial developments including, gas stations, restaurants, grocery stores, and entertainment venues, are scattered adjacent to the I-405 project area along Harbor Boulevard, Euclid Street/Ellis Avenue, Brookhurst Street, Beach Boulevard, Edinger Avenue, Warner Avenue, and Goldenwest Street.

The previously discussed temporary long-term closures would represent a temporary inconvenience to residents, businesses and business patrons within the I-405 improvement project area and would result in increased travel times ranging from 0.75 to 6 minutes. All temporary long-term closures are supported by adequate detours, as shown in Attachment A, and a robust local arterial street network. Access to **all** business will be maintained during construction of the I-405 improvement project and **all** are accessible from alternate freeway off-ramps and utilizing the local streets. Based on the short-term and temporary nature of the closures (10 to 30 days), the increased travel times and distances would not result in either a substantial economic effect on businesses or substantial delays or travels cost for residents or business patrons. There are several Major Activity Centers in the I-405 Improvement Project study area which include:

- Metro Pointe retail center and South Coast Plaza in Costa Mesa accessible from the South Coast Drive off-ramp on the north side of I-405;
- The Bella Terra Mall in Huntington Beach, accessible from the Beach Boulevard off-ramps on the north and south sides of I-405;
- The Westminster Mall in the City of Westminster along the south side of I-405, accessible from Goldenwest Street and Bolsa Avenue off-ramps on the north and south sides of I-405.

As shown in Table 1, of the ramps serving major activity centers, only the South Coast Drive off-ramp would experience a long-term temporary closure (from 10 to 30 days), for which the proposed detour is identified in Attachment A Sheet 1. The two major activity centers served by the South Coast Drive off-ramp are both easily accessible by the proposed detour route. The South Coast Drive off-ramp closure would not result in any substantial effect on businesses at either activity center, as it diverts traffic only 0.5 mile east on NB I-405. Additionally, this ramp will not be closed from November 1st–January 31st to minimize potential economic effects during the busy holiday shopping season. With the seasonal closure restrictions for South Coast Drive off-ramp, Beach Boulevard off-ramps, and Bolsa Avenue and Goldenwest off-ramps, the

I-405 Improvement Project would not result in a substantial economic effect or substantially affect access to major activity centers. Additionally, it should be noted that during the temporary long-term closures for the Magnolia Street SB off-ramp and the Westminster Ave SB on-ramp, the Bella Terra and Westminster Malls could experience increased economic activity due to the detour related drive-by traffic (See Attachment A, Sheets 9 and 11).

No temporary long-term closures have been identified that would result in any substantial effect on emergency access or response times. As discussed in the coordination section below under TMP Strategies, coordination with local jurisdictions and emergency service providers (CHP, local police, fire, paramedics, etc.) will be required during the final design to identify emergency service routes that serve hospitals, fire/police stations, emergency shelters, emergency command centers and other facilities that provide essential services in times of emergencies within the study area. All emergency service routes would be maintained during construction or alternate routes would be provided and emergency service providers would be notified in advance prior to any closures or interruptions to emergency service routes.

Four hospitals were identified within the I-405 Improvement Project area and include the following:

- **Fountain Valley Regional Hospital and Medical Center:** 17100 Euclid Street Fountain Valley, CA 92708
- **Orange Coast Memorial Medical Center:** 9920 Talbert Avenue, Fountain Valley, CA 92708; and
- **Huntington Beach Hospital:** 17772 Beach Boulevard, Huntington Beach, CA 92647
- **Los Alamitos Medical Center:** 3751 Katella Ave, Los Alamitos, CA 90720

No temporary long-term closures have been identified that would result in any substantial effect on access to or response times to/from these hospitals.

Based on the short-term and temporary nature of the long-term ramp closures (10 to 30 days), incorporation of the assumptions from this RCS into the EIR/EIS and Final TMP, and the TMP Strategies summarized below from the Draft TMP, will result in no substantial economic effects on businesses, business appeal to patrons or inconvenience to corridor residents.

TMP Strategies

The Transportation Management Plan (TMP) is a specialized program designed to minimize the impacts of a construction project by applying a variety of techniques including Public Information, Motorist Information, Incident Management, Construction Strategies, Demand Management and Alternate Route Strategies. For the I-405 Improvement Project, the following TMP strategies are proposed based on the type of work planned, the geographic and demographic area, and the anticipated traffic impacts:

- Public Information
- Motorist Information
- Incident Management
- Construction Strategies
- Demand Management
- Alternate Route Strategies
- Contingency Plans
- Coordination Elements

A draft project-specific conceptual TMP has been completed and attached to the Project Report, and will be finalized during the design phase. Proposed TMP strategies from the project Draft TMP (June 2011) are provided below and accommodate the assumptions upon which this Ramp Closure Study is based. During the design phase, if it is determined that changes to or elimination of the ramp closure durations, locations or assumptions are warranted, additional analysis and coordination with corridor cities and business may be required to ensure that project changes would not result in substantial effects related to temporary long-term ramp closures.

Public Information: OCTA is expected to lead public relations and carry out a Public Awareness Campaign (PAC) during the final design and construction to provide the public with information relating to planned and on-going highway work. Information on construction activities, upcoming detours and/or lane closures, possible alternate routes, and alternate transportation modes will be disseminated to the public via a number of methods including:

- Brochures and mailers to be mailed periodically throughout the entire construction period to residents and businesses in targeted areas
- Press releases and news media events during key construction milestones that involve closures and changes in traffic patterns

- Paid advertisements through local newspapers (OC Register, Excelsior, Ngou-Viet, Long Beach Press Telegram, and Daily Pilots) to be published approximately one month prior to start of construction with regular updates thereafter
- Community outreach/public meetings to be held at the beginning of each major construction phase
- A 24-hour telephone hotline providing automated daily update of construction activities and road closures
- Project website to be maintained by OCTA providing all-encompassing information about the project construction
- Direct e-mails or e-newsletters to residents and businesses in targeted areas
- Community task force (local businesses/merchants) to help disseminate information
- Posting of construction information at local libraries, schools and City's public work offices
- Information posted to social network sites such as Facebook and Twitter

Motorist Information: Motorist information strategies are used to relay near-“real time” information regarding potential delays and available detours to motorists, enabling them to make travel plans accordingly. The following mechanisms will be employed to provide motorist information:

- Existing Changeable Message Signs (CMS) to report changing travel conditions
- Portable Changeable Message Signs (PCMS) to report changing travel conditions
- Stationary ground-mounted signs to provide information about immediate road conditions
- Traffic radio announcements
- Information available on Caltrans Highway Information Network (CHIN), 1-800-427-ROAD.

Incident Management Strategies: An incident is any event that interrupts traffic flow for a considerable amount of time. Incident management strategies are proposed for this project to manage the effects of traffic incidents or vehicular breakdown in or near the work zone. The goal of the incident management strategies is to minimize the time to detect, respond to, and remove the incident from the roadway as safely and quickly as possible. Key components of incident management strategies are identified below.

- A Traffic Management Team (TMT) will be established to assist in managing traffic during incidents and planned lane closures. The TMT would include representatives from

OCTA, local agencies and local law enforcement agencies, California Highway Patrol (CHP), and Caltrans' Public Affairs, Traffic Operations, Design, and Construction units.

- The District Traffic Management Center (TMC) will be used for coordinating and managing traffic and incident information dissemination.
- Existing traffic surveillance equipments including closed circuit television cameras (CCTV) and vehicle detection/monitoring systems in conjunction with additional temporary systems will be used to help detect incidents and manage traffic through the construction area.
- The existing Freeway Service Patrol (FSP) that currently patrols I-405 during the morning and afternoon peak hours and removes disabled vehicles from the freeway at no charge to the motorist under the auspices of Caltrans will be expanded during certain phases of construction. A supplemental team of FSP towed trucks will be provided beyond the peak hour periods during certain construction stages, especially when there would be no shoulders on the mainline to allow motorists to move away from the travel way.
- A Construction Zone Enhanced Enforcement Program (COZEEP) will be established for the entire construction period. A highly visible CHP presence would alert motorists that road work is being performed and that motorist behavior is under surveillance. COZEEP services are especially beneficial during night work and when construction workers are on foot in the work zone.

Construction Strategies: A major part of construction strategies will be implemented through staging construction and incorporated into the construction contract documents (traffic handling plans, construction area sign plans, contract special provisions, etc.). These strategies are designed to minimize project effects resulting from construction activities on traffic circulation and include:

- Lane closure restrictions during holidays and special local events
- Closure of secondary streets during construction to allow quick construction and re-opening
- Lane modifications (lane reductions, shifts) to maintain the number of lanes needed
- Allowing night work and extended weekend work
- Maintaining business access
- Maintaining pedestrian and bicycle access
- Usage of rapid strength concrete at selected locations such as ramp terminal and intersection areas to accelerate construction and reduce closure duration

- Adding liquidated damages clause

A supplemental construction strategy under consideration for this project is the use of an incentive/disincentive program to motivate the contractor to achieve the overall construction schedule and minimize impacts to traveling public and local communities. A n incentive/disincentive payment could be programmed for intermediate milestones or for the final completion of the project contracted work. The incentive/disincentive payment clause would need to be included in the contract special provisions during the final design.

Demand Management: This strategy involves promoting the use of public transit, ride sharing and variable work hours to reduce the amount of traffic using the freeway and roadways in and around construction zone. Through the public awareness campaign, large employers will be urged to consider staggered working hours and encourage their employees to use the OCTA transit system and rideshare resources which includes six park-and-ride lots along the I-405 corridor. Incentive programs such as free transit tickets and free/discounted merchant coupons for rideshare participants could be used to attract participants.

Alternate Route Strategies: Alternate routes and detours will be used to give motorists the opportunity to avoid the work zone by diverting to other highway or adjacent surface streets. Alternate routes and detours will be provided in the contract documents during the final design. Primary and major arterials surrounding the project area depicted in Attachment E of the June 2011 TMP will be used as alternate and detour routes during construction of various overcrossing structures and arterial improvements. Attachment A provides alternate and detour routes for interchange ramps that require closure from 10 to 30 days during reconstruction. Supplemental traffic analysis along alternate and detour routes may need to be performed during the final design phase to evaluate roadway and intersection performance and mitigation measures in response to added traffic. Potential mitigations that could be made on alternate and detour routes include:

- Street/intersection improvements (widening, pavement rehabilitation, removal of median, restriping, etc.) to provide added capacity to handle detour traffic
- Signal improvements, adjustment of signal timing and/or signal coordination to increase vehicle throughput, improve traffic flow and optimize intersection capacity
- Turn restrictions at intersections and roadways necessary to reduce congestion and improve safety
- Parking restrictions on alternate and detour routes during work hours to increase capacity, reduce traffic conflicts and improve access

Contingency Plans: Contingency plans will need to be developed during the final design phase to address unexpected events that could impact construction operations and traffic handling during critical work operations. Critical work operations are operations that require closure of a lane, ramp or shoulder such as:

- Roadway excavation
- Bridge demolition
- Bridge work
- Erection and removal of falsework
- Pavement operations
- Striping

Construction Operations Contingency Plan: Contract special provisions to be prepared in the final design would require the contractor to develop a Construction Operations Contingency Plan to identify elements that could potentially fail and cause delayed opening of lane closures, and provide the alternatives to ensure continuing operations and on-time opening of traffic lanes for each of the identified critical work operations. Elements that will be addressed in the plan include:

- Delayed construction operations
- Equipment breakdown
- Unavailable materials
- Bad weather
- Heavier traffic than expected

Traffic Handling Contingency Strategies: Traffic handling contingency strategies are typically developed during the final design with cooperation of the Caltrans Division of Traffic Operations to identify traffic handling contingency strategies to be employed in the event of work zone incidents or late lane closure pickups. Traffic handling contingency strategies will include procedures/methods for:

- Notification of incident/late closure pickup to the TMC, CHP, Highway Advisory Radio system, and the media
- Request for TMT assistance
- Activation of CMS and PCMS
- Activation of a detour

- Provision of emergency access through construction zones and during road closures

Coordination Elements:

Emergency Response - Coordination with local jurisdictions and emergency service providers (CHP, local police, fire, paramedics, etc.) will be made during the final design to identify emergency service routes that serve hospitals, fire/police stations, emergency shelters, emergency command centers and other facilities that provide essential services in times of emergencies within the study area. These emergency service routes would be maintained during construction or alternate routes would be provided. The construction contract documents would require that emergency service providers be notified in advance prior to any lane closures, interruptions on emergency service routes, or changes in traffic control. Following are emergency service providers that have been identified to provide emergency responses to the area surrounding the project site:

Fire Protection Services

- Santa Ana Fire Department
- Costa Mesa Fire Department
- Fountain Valley Fire Department
- Huntington Beach Fire Department
- Orange County Fire Authority (for Westminster, Seal Beach, Rossmore and Los Alamitos)
- Garden Grove Fire Department
- Seal Beach Fire Department
- Long Beach Fire Department
- Los Angeles County Fire Department (for Hawaiian Garden, Long Beach and Lakewood)

Police Protection Services

- Santa Ana Police Department
- Costa Mesa Police Department
- Fountain Valley Police Department
- Huntington Beach Police Department
- Westminster Police Department
- Garden Grove Police Department
- Seal Beach Police Department


- Long Beach Police Department
- Orange County Sheriff's Department (for Rossmoor)
- Los Alamitos Police Department
- Los Angeles County Sheriff's Department (for Hawaiian Gardens and Lakewood)
- Long Beach Police Department

Transit Operations-Transit agencies will be informed about the temporary lane and street closures during the final design.

Commercial Vehicle Operations-Commercial vehicle operators will be notified of all planned construction activities, implementation of detours or road closures. Contacts for commercial vehicle operations include:

- California Trucking Association (CTA) in Sacramento, CA, Phone: (916) 373-3500
- Regional Truck Permit Office in San Bernardino, Phone (909) 388-7001

Attachment A Temporary Long-Term Ramp Closure Detour Routes

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		CONSULTANT FUNCTIONAL SUPERVISOR		CALCULATED-DESIGNED BY		REVISED BY			
				CHECKED BY		DATE		REVISED	

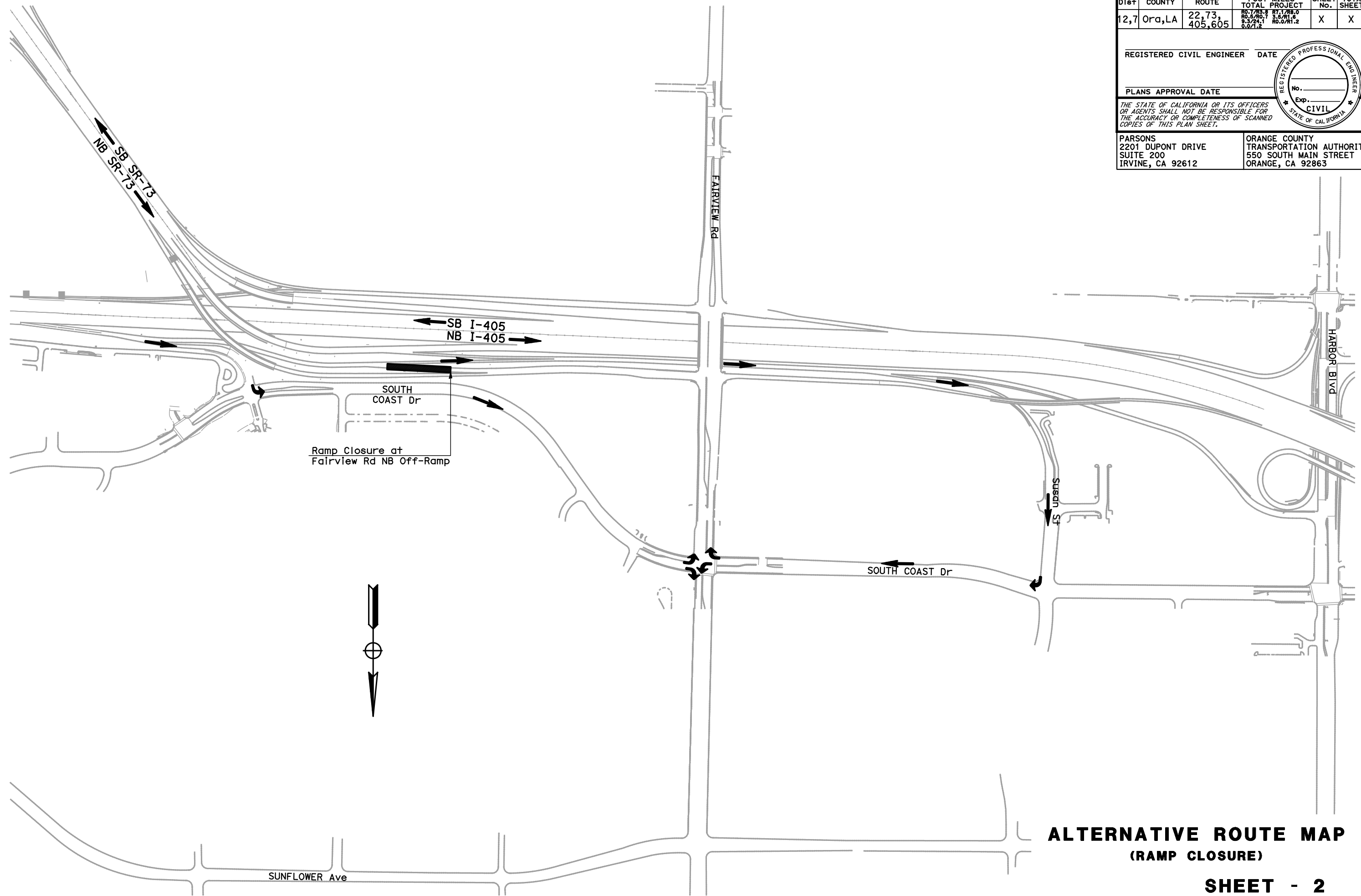
Dist#	COUNTY	ROUTE	TOTAL MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12,7	Oran, LA	22, 73, 405, 605	RD. 7/RS. 8 RD. 5/RO. 7 3.3/24.1 0.0/1.2	RT. 1/RS. 0 3.6/RT. 2 RD. 5/RT. 2	X X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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COPIES OF THIS PLAN SHEET.*


PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863
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ALTERNATIVE ROUTE MAP (RAMP CLOSURE)

SHEET - 2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



CONSULTANT FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY

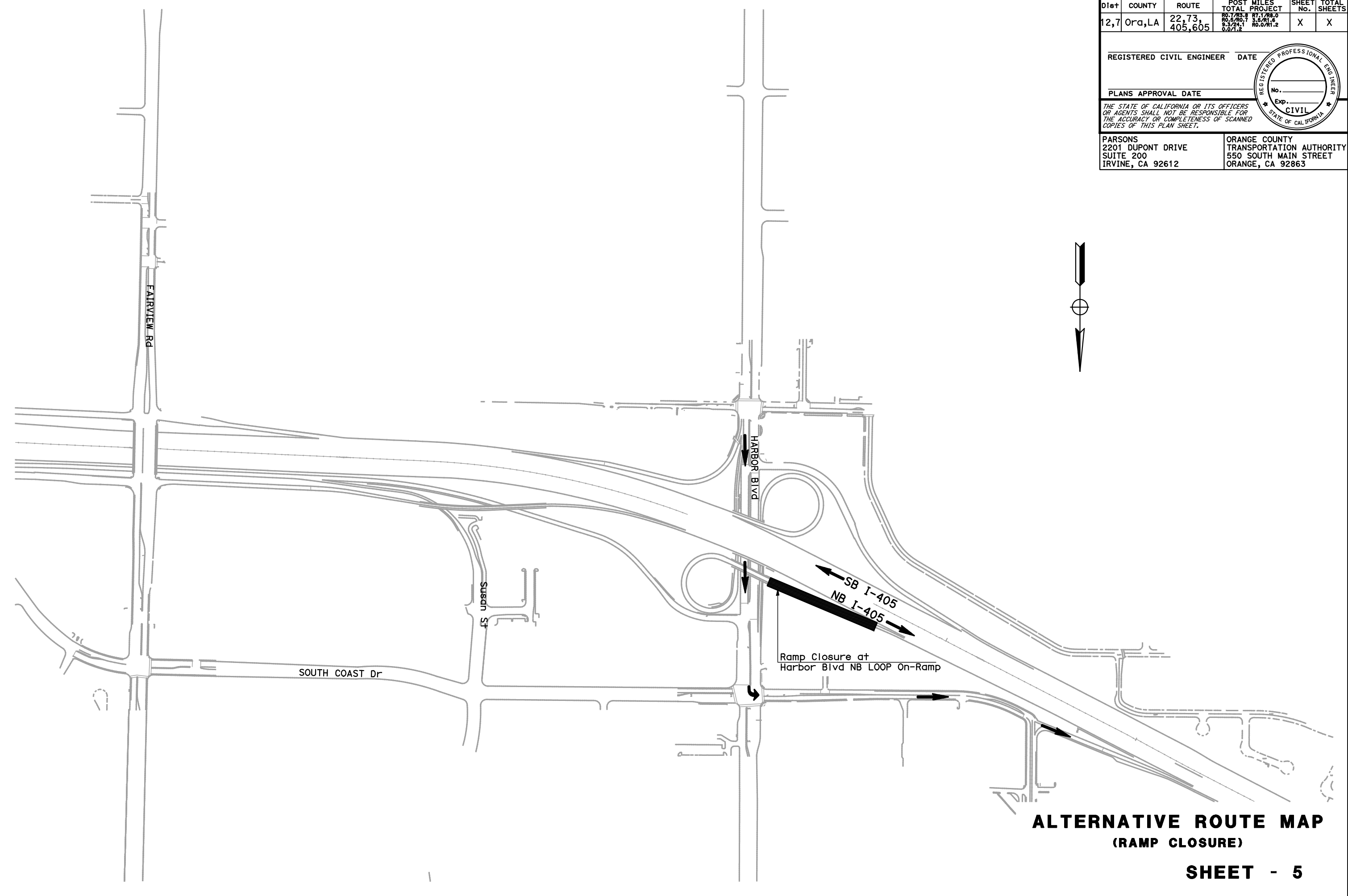
CHECKED BY

REVISOR

DATE

REVISOR

DATE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12,7	Ora,LA	22,73, 405,605	RD.1/RS.8 RD.5/RS.1 9.3/24.1 0.0/1.2	X	X

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

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IRVINE, CA 92612

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 SOUTH MAIN STREET
ORANGE, CA 92863

REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

CIVIL

STATE OF CALIFORNIA

LAST REVISION | DATE PLOTTED => \$DATE
00-00-00 | TIME PLOTTED => \$TIME

Dist	COUNTY	ROUTE	TOTAL MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12,7	Ora, LA	22,73, 405,605	RD. 7/R2.8 RD. 5/RD. 0 3.5/R1.2 0.6/R1.2	RY. 1/R8.0 3.5/R1.2 RD. 5/R1.2	X X

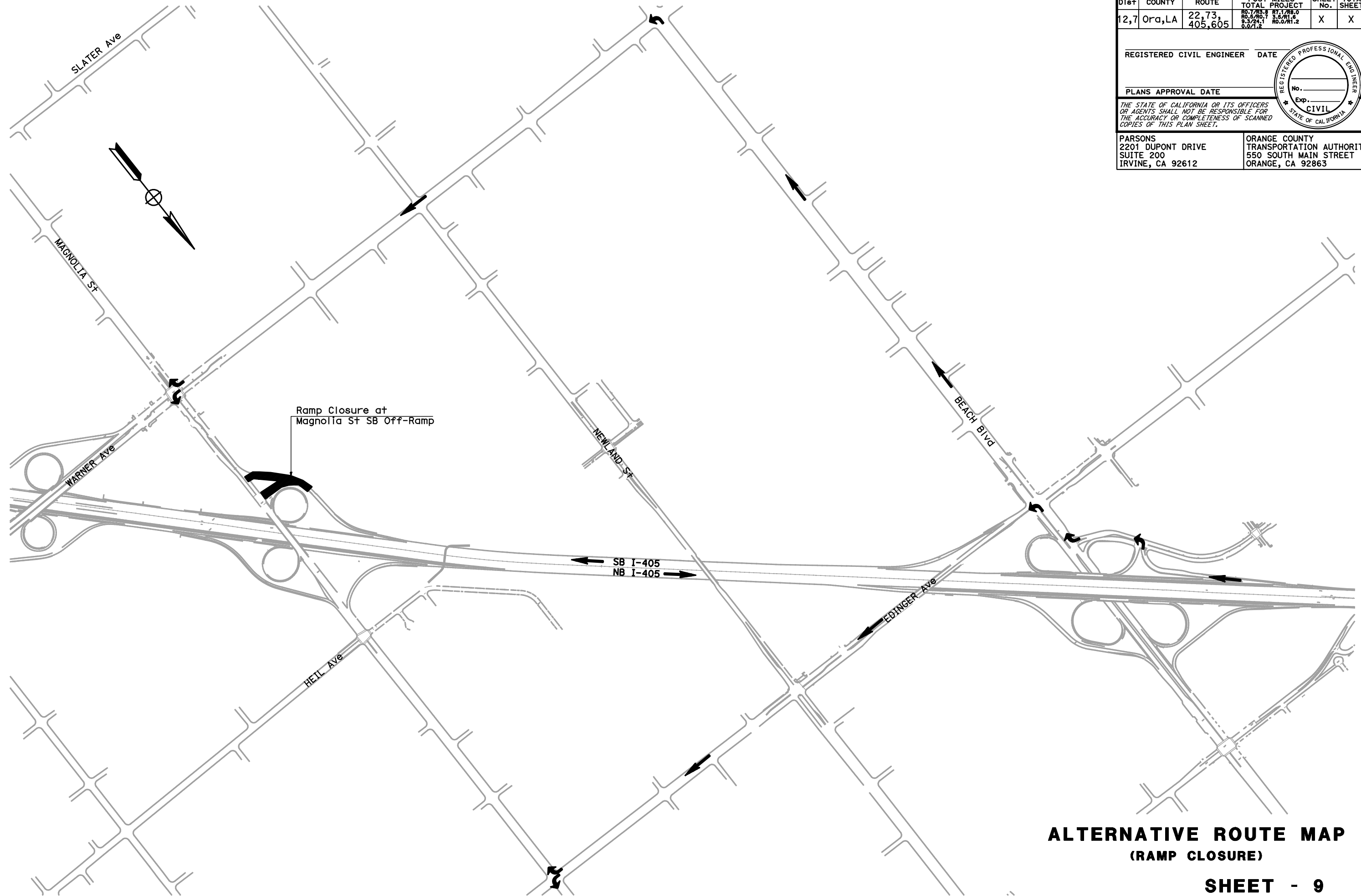
REGISTERED CIVIL ENGINEER DATE

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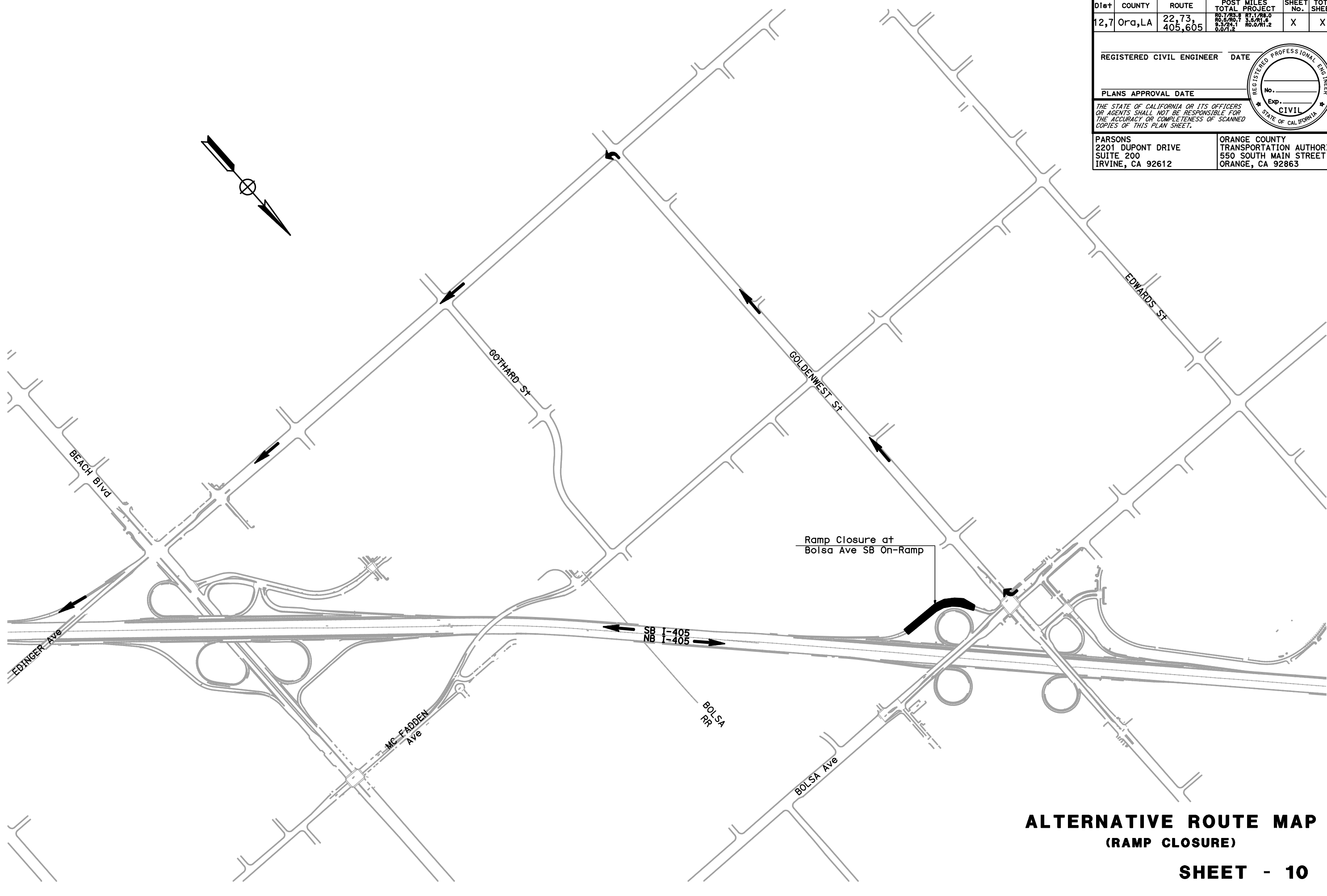
ALTERNATIVE ROUTE MAP (RAMP CLOSURE)

SHEET - 9

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			BY	DATE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12,7	Oran,LA	22,73, 405,605	NO. 1/25.8 17,17/28.0 NO. 5/24.1 3.0/21.6 9.3/24.1 NO. 0/21.2	X	X

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TRANSPORTATION AUTHORITY
550 SOUTH MAIN STREET
ORANGE, CA 92863

ALTERNATIVE ROUTE MAP

(RAMP CLOSURE)

SHEET - 10

BORDER LAST REVISED 7/2/2010

USERNAME => \$USER
DGN FILE => \$REQUEST

RELATIVE BORDER SCALE IS IN INCHES

0 1 2 3

UNIT 2994

PROJECT NUMBER & PHASE


1200000180


LAST REVISION

DATE PLOTTED => \$DATE

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TIME PLOTTED => \$TIME

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			CHECKED BY	DATE	REVISED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR		CALCULATED-DESIGNED BY	REVISOR	DATE
			CHECKED BY	DATE	REVISOR

Appendix D

Draft Traffic Management Plan

DRAFT

TRANSPORTATION MANAGEMENT PLAN

For Interstate 405 Improvement Project

12-Ora-22 PM R0.5/R0.7

12-Ora-22 PM R0.7/R3.8

12-Ora-73 PM R27.2/R27.8

12-Ora-405 PM 9.3/24.2

12-LA-405 PM 0.0/1.2

12-Ora-605 PM 3.5/R1.6

12-LA-605 PM R0.0/R1.2

Project No. 12000001800

Prepared for:



Orange County Transportation Authority

and



California Department of Transportation, District 12

Prepared by:

PARSONS

2201 Dupont Drive, Suite 200
Irvine, California 92612

August 2011

I-405 IMPROVEMENT PROJECT

This Transportation Management Plan has been prepared under the direction of the following registered persons. The registered Civil Engineer attests to the technical information contained therein and have judged the qualifications of any technical specialists providing engineering data upon which recommendations, conclusions, and decisions are based.

Kanogporn S. Tiberi, P.E.
Registered Civil Engineer
Parsons

Date

With Concurrence of:

Gary Slater, P.E., Chief
Traffic Operations North / TMP

Date

James Pinhiero, P.E., Deputy District Director
Operations & Maintenance

Date

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1.0 EXECUTIVE SUMMARY

This report represents the Transportation Management Plan (TMP) for the Interstate 405 (I-405) Improvement Project in Orange and Los Angeles Counties for approximately 16 miles from 0.2 miles south of Bristol Street to 1.4 miles north of Interstate 605 (I-605) and portions of State Route 22 (SR-22), State Route 73 (SR-73), and I-605. This TMP presents the overall framework for traffic management during construction of this project, which is currently in the Project Approval/Environmental Document (PA/ED) phase. This TMP must be updated during the final design phase of the project. The construction of the I-405 Improvement project is anticipated to begin in summer 2015 and take approximately 54 months.

The TMP is a specialized program designed to minimize the impacts of a construction project by applying a variety of strategies. The TMP elements recommended for the I-405 Improvement Project include:

- Public Information
- Motorist Information
- Incident Management
- Construction Strategies
- Demand Management
- Alternate Route Strategies
- Contingency Plans
- Coordination Elements

Proposed TMP elements for the I-405 Improvement Project are discussed in Section 7.0 of this report and associated costs are listed in the TMP Data Sheets provided in Attachment C. A cost summary of various TMP strategies is shown below:

Preliminary TMP Cost Estimates

TMP Cost Estimate	Alternative 1	Alternative 2	Alternative 3
Public Information	\$ 310,000	\$ 350,000	\$ 410,000
Motorist Information	\$ 180,000	\$ 180,000	\$ 180,000
Incident Management	\$ 2,050,000	\$ 2,300,000	\$ 2,480,000
Construction Strategies	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
Demand Management	\$ 0	\$ 0	\$ 0
Alternate Route Strategies	\$ 1,000,000	\$ 1,000,000	\$ 1,200,000
Contingency Plans	\$ 0	\$ 0	\$ 0
Coordination Elements	\$ 0	\$ 0	\$ 0
Total	\$ 5,040,000	\$ 5,330,000	\$ 5,770,000

Establishment of a Traffic Management Team (TMT) is recommended for this project. The TMT would include representatives from OCTA, local agencies and local law enforcement agencies, California Highway Patrol, and Caltrans Public Affairs, Traffic Operations, Design, and Construction units.

2.0 PROJECT DESCRIPTION

The California Department of Transportation (Caltrans), in cooperation with the Orange County Transportation Authority (OCTA), proposes to improve the freeway mainline and interchanges on I-405 for approximately 16 miles (mi) between 0.2 miles south of Bristol Street and 1.4 miles north of I-605 as well as portions of SR-22, SR-73, and I-605 to reduce congestion and improve lane continuity through the corridor. The project corridor is primarily located in Orange County with minor improvements in Los Angeles County. The project vicinity and location maps are included as Attachment A. The project is currently in the PA/ED phase, with the circulation of the draft environmental document anticipated in late 2011. Three build alternatives are being considered including:

- Build Alternative 1 – this alternative would add one general purpose lane in each direction of I-405 from Euclid Street to I-605.
- Build Alternative 2 – this alternative would add one general purpose lane in each direction of I-405 from Euclid Street to I-605 and a second general purpose lane northbound from Brookhurst Street to the SR-22/7th Street interchange and southbound from Seal Beach Boulevard to Brookhurst Street.
- Build Alternative 3 – this alternative would add one general purpose lane in each direction of I-405 from Euclid Street to I-605 and one median lane from SR-73 to SR-22 East to operate together with the existing High Occupancy Vehicle (HOV) lanes as Express Lanes in which eligible HOVs would travel free and other vehicles would pay a toll.

Graphics showing the proposed lane configurations under each alternative are included as Attachment B.

2.1 Improvement Features

In addition to the mainline lane widening, the I-405 Improvement Project would include mainline geometric and interchange ramp improvements as described below:

- New auxiliary lane on NB I-405 at the approach to Euclid Street Off-Ramp
- New auxiliary lane on NB I-405 between Seal Beach Boulevard On-ramp and SR-22/7th Street Off-Ramp (except in Alternative 2, where one full lane is added between SR-22/Valley View Street and SR-22/7th Street Off-Ramp)
- Extension of the auxiliary lane on SB I-405 between Euclid St On-Ramp and Harbor Blvd Off-Ramp
- Removal of the SB auxiliary lane between Beach Boulevard On-Ramp and Magnolia Street Off-Ramp
- Reconstruction of most existing interchange ramps from Fairview Road to Seal Beach Boulevard
- Additional through and turn lanes at ramp intersections with local streets
- Removal of HOV bypass lanes from on-ramps
- A new on-ramp from EB Ellis Avenue to SB I-405
- Reconfiguration of the Brookhurst Street interchange from cloverleaf to partial cloverleaf
- New braided ramps on both directions of I-405 between Warner Avenue and Magnolia Street
- Reconfiguration of the Beach Boulevard interchange from cloverleaf to partial cloverleaf

- Widening of Ward Street, Newland Street and McFadden Avenue from 2 to 4 lanes
- Construction of retaining walls where needed
- Reconstruction of existing sound walls that would be impacted by the project construction
- Construction of new sound walls where warranted

The project would also consist of up to 10 new structures, 18 structure replacements, and 6 structure widening/modifications as well as several flood control channel upgrades as listed below:

10 New Structures:

- 405-73 Direct Connector Structure (Alternative 3 only)
- Harbor Boulevard SB loop on-ramp structure (Alternative 3 only)
- Euclid Street SB on-ramp structure over the Santa Ana River
- Euclid Street SB on-ramp structure over the Orange County Sanitation District driveway
- Warner Avenue NB on-ramp structure over Magnolia Street NB off-ramp (braided)
- Magnolia Street SB loop on-ramp structure over Warner Avenue NB off-ramp (braided)
- Beach Boulevard NB loop on-ramp (N39-N405) structure
- Beach Boulevard SB loop on-ramp (S39-S405) structure
- East Garden Grove-Wintersburg Channel NB bridge
- East Garden Grove-Wintersburg Channel SB bridge

18 Structure Replacements:

- Fairview Road OC (Alternative 3 only)
- Ward Street OC
- Talbert Avenue OC
- Brookhurst Street OC
- Slater Avenue OC
- Bushard Street OC
- Warner Avenue OC
- Magnolia Street OC
- Pedestrian OC near Heil Avenue
- Newland Street OC
- Edinger Avenue OC
- McFadden Avenue OC
- Bolsa Avenue OC
- Goldenwest Street OC
- Edwards Street OC
- Westminster Boulevard OC
- Springdale Street OC
- Bolsa Chica Road OC

6 Structure Widening/Modifications:

- Harbor Boulevard UC widening (Alternative 3 only)
- Service Road UC Box Culvert Extension
- Santa Ana River Bridge (Left and Right) widening
- Tieback Walls No. 2200 & 2300 at Route 405/39 Separation

- Bolsa Overhead widening (over Union Pacific Railroad)
- Navy Overhead widening (over U.S. Navy Railroad)

7 Drainage Structure Modifications and 1 New Drainage Structure:

- Greenville-Banning Channel (Alternative 3 only) RCP extension
- Hyland Storm Drain (Alternative 3 only) inlet structure modifications
- Fountain Valley Channel box culvert extension
- Ocean View Channel box culvert extension
- Heil Avenue Drain box culvert extension
- Milan Storm Drain realignment
- Montecito Storm Channel box culvert extension
- New Bixby Channel Bypass new bypass structure

A summary of major structure and flood control channel improvements along I-405 from south to north is provided in the table below:

I-405 Structure Improvement List

No.	Post Mile	Structure Name	Bridge No.	Type of Work
1	10.23	405-73 HOV Direct Connector Structure (Alt 3 only)	55-xxxx	New
2	10.79	Fairview Road OC (Alt 3 only)	55-0432	Replace
3	11.45	Harbor Boulevard UC (Alt 3 only)	55-0257	Widen
4	11.xx	Harbor Boulevard SB loop on-ramp structure (Alt 3 only)	55-xxxx	New
5	11.xx	Hyland Storm Drain (Alt 3 only)	N/A	Modify
6	11.70	Greenville-Banning Channel Box Culvert	55-0476	Extend
7	12.40	Service Road UC Box Culvert	55-0259	Extend
8	12.41	Santa Ana River Bridge (Left and Right)	55-0258	Widen
9	12.xx	Euclid Street SB on-ramp structure over Santa Ana River	55-xxxx	New
10	12.xx	Euclid Street SB on-ramp structure over OCSD driveway	55-xxxx	New
11	12.xx	Fountain Valley Channel	N/A	Extend
12	13.15	Ward Street OC	55-0429	Replace
13	13.41	Talbert Avenue OC	55-0260	Replace
14	13.78	Brookhurst Street OC	55-0402	Replace
15	14.13	Slater Avenue OC	55-0261	Replace
16	14.50	Bushard Street OC	55-0262	Replace
17	14.82	Warner Avenue OC	55-0263	Replace
18	14.xx	Warner Avenue/Magnolia Street NB braided ramps structure	55-xxxx	New
19	15.00	Ocean View Channel Box Culvert	55-0478	Extend
20	15.xx	Magnolia Street/Warner Avenue SB braided ramp structure	55-xxxx	New
21	15.21	Magnolia Street OC	55-0264	Replace
22	15.48	Pedestrian OC near Heil Avenue	55-0407	Replace
23	15.49	Heil Avenue Drain Box Culvert	55-0479	Extend
24	15.87	East Garden Grove – Wintersburg Channel Bridge NB	55-xxxx	New
25	15.87	East Garden Grove – Wintersburg Channel Bridge SB	55-xxxx	New
26	15.90	Newland Street OC	55-0265	Replace
27	16.28	Edinger Avenue OC	55-0266	Replace
28	16.52	Beach Boulevard NB loop on-ramp (N39-N405) structure	55-xxxx	New
39	16.52	Beach Boulevard SB loop on-ramp (S39-S405) structure	55-xxxx	New

No.	Post Mile	Structure Name	Bridge No.	Type of Work
30	16.52	Route 405/39 Tieback Wall 2200 & 2300	55-xxxx	New
31	16.98	McFadden Avenue OC	55-0268	Replace
32	17.21	Bolsa Overhead	55-0269	Widen
33	17.75	Bolsa Avenue OC	55-0270	Replace
34	17.94	Goldenwest Street OC	55-0271	Replace
35	18.36	Navy Overhead	55-0272	Widen
36	18.60	Edwards Street OC	55-0273	Replace
37	19.16	Westminster Boulevard OC	55-0274	Replace
38	19.38	Springdale Street OC	55-0275	Replace
39	23.xx	Milan Storm Channel	N/A	Replace
40	20.56	Bolsa Chica Road OC	55-0276	Replace
41	23.xx	Bixby Channel Bypass Box Culvert	55-xxxx	New
42	23.xx	Montecito Storm Channel	N/A	Extend

Notes: missing structure numbers and post mile designation will be assigned during the final design.

N/A = no bridge no assigned

2.2 Need and Purpose

More than half of the I-405 project corridor currently operates under Level of Service (LOS) F (breakdown) conditions during at least one of the two daily peak hours. With the anticipated future growth in Orange County, this segment of I-405 is expected to experience an increase in travel delays of over 20 percent or 15 to 20 minutes of additional travel time. In addition, interchanges along I-405 have geometric, storage and operational deficiencies that need to be addressed. The need for the project has been identified as follows:

- The I-405 general purpose lanes peak period traffic demand exceeds available capacity
- The I-405 HOV lanes peak period traffic demand exceeds available capacity
- The I-405 mainline have operational and geometric deficiencies
- The interchanges along the project corridor have geometric, storage, and operational deficiencies
- The I-405 currently has limitations in detecting traffic incidents and providing rapid responses and clearance

To address the deficiencies and problems identified above, the purpose of the project has been established as follows:

- Add capacity and reduce congestion on the general purpose and HOV lanes
- Enhance interchange operations
- Increase mobility, maximize throughput, improve trip reliability, optimize operations
- Implement strategies that ensure the earliest project delivery
- Enhance safety

3.0 EXISTING FACILITIES

I-405 (the San Diego Freeway) is generally a north-south route with 24 miles in Orange County and 48 miles in Los Angeles County. It is considered a bypass route to Interstate 5 (the Santa Ana/Golden State Freeway) providing intra-regional and inter-regional access between Orange and Los Angeles Counties. It is also a critical goods movement corridor connecting the San Diego and U.S./Mexico Border region with the Ports of Long Beach and Los Angeles. Within the project limits, I-405 is a controlled-access freeway running in the northwest-southeast direction, with 8 to 12 general purpose lanes, 2 HOV lanes, and auxiliary lanes along selected portions of the route.

Construction of the SR-22/West County Connectors (SR-22/WOCC), Phase II project is currently underway to add two HOV lanes in the median of I-405 between SR-22 and I-605 along with HOV direct connectors at the I-405/SR-22 and I-405/I-605 interchanges, with an estimated completion date in 2014. In addition, the Bolsa Chica Road SB off-ramp is being relocated from its current departure on the S405-E22 Connector to a point on I-405 south of the S405-E22 Connector. Two new structures will be constructed and seven existing structures will be replaced or lengthened as part of the SR-22/WOCC, Phase II project as listed below:

- Bolsa Chica Road OC (replace), 55-1102, Post Mile (PM) 0.92
- S405-E22 Connector (replace), 55-1101F, PM 20.75
- 22-405 HOV Direct Connector (new), 55-1103E, PM 20.66
- Seal Beach Boulevard OC (replace), 55-1099, PM 22.64
- N405-W22 Connector Separation (replace), 55-1100G, PM 23.27
- 405-605 HOV Direct Connector (new), 55-1098E, PM 24.02
- E22-N405 Connector UC (lengthen), 55-0415, PM R0.16
- E22-N405/405 Separation Structure (replace), 55-1096G, PM R0.39
- E22-N605/405 Separation (replace), 55-1097G, PM R0.39

Existing arterials surrounding the I-405 freeway consist of multiple classes of roadways. The following table provides a list of existing arterials that cross I-405 from south to north:

Arterial	Classification ⁽¹⁾	Ped	Bike	Jurisdiction
Fairview Road	Major	NB/SB	NB/SB, Class II	Costa Mesa
Harbor Boulevard	Major	NB	none	Costa Mesa
Euclid Street/Ellis Avenue	Primary/Secondary ⁽²⁾	none	none	Fountain Valley
Ward Street	Secondary	SB	NB/SB, Class II	Fountain Valley
Talbert Avenue	Primary	EB	none	Fountain Valley
Brookhurst Street	Major	NB/SB	none	Fountain Valley
Slater Avenue	Secondary ⁽³⁾	WB/EB	WB/EB, Class II	Fountain Valley
Bushard Street	Secondary	NB/SB	NB/SB, Class II	Fountain Valley
Warner Avenue	Major	EB	none	Fountain Valley
Magnolia Street	Primary	SB	none	Fountain Valley, Huntington Beach and Westminster
Newland Street	Secondary	SB	none	Westminster and Huntington Beach

Arterial	Classification ⁽¹⁾	Ped	Bike	Jurisdiction
Edinger Avenue	Primary	EB	none	Huntington Beach
Beach Boulevard (Route 39)	Principal ⁽⁴⁾	NB/SB	none	Westminster, and Huntington Beach
McFadden Avenue	Secondary	WB	none	Huntington Beach
Bolsa Avenue	Major	EB	none	Westminster and Huntington Beach
Goldenwest Street	Primary	NB	none	Westminster and Huntington Beach
Edwards Street	Secondary	NB/SB	NB/SB, Class II	Westminster
Westminster Boulevard	Primary	EB	none	Westminster
Springdale Street	Secondary ⁽⁵⁾	NB	none	Westminster
Bolsa Chica Road	Major	NB	none	Westminster
Seal Beach Boulevard	Major	SB	NB/SB, Class II	Seal Beach

⁽¹⁾ Roadway classifications per the OCTA Master Plan of Arterial Highways (MPAH), 2005:

- Principal arterial – an 8-lane divided roadway accommodating 45,000 to 60,000 daily traffic volume
- Major arterial – a 6-lane divided roadway accommodating 30,000 to 45,000 daily traffic volume
- Primary arterial – a 4-lane divided roadway accommodating 20,000 to 30,000 daily traffic volume
- Secondary arterial – a 4-lane undivided roadway accommodating 10,000 to 20,000 daily traffic volume

⁽²⁾ Euclid Street changes name to Ellis Avenue south of I-405, as well as direction and roadway classification

⁽³⁾ Slater Avenue is classified as primary arterial north of I-405 and as secondary arterial south of I-405

⁽⁴⁾ Beach Boulevard is also classified as a “smart street” by the MPAH.

⁽⁵⁾ Springdale Street is classified as secondary arterial north of I-405 and as primary arterial south of I-405

Ped = pedestrian

NB = northbound; SB = southbound; WB = westbound; EB = eastbound

4.0 TMP GOALS

This TMP is being prepared in accordance with the Caltrans Guidelines Deputy Directive 60 (DD-60) in order to minimize motorist delays when performing work activities on the State Highway System. The TMP is designed to minimize traffic delays that may result from lane restrictions or closures during construction operations and move motorists through work zones quickly and safely. Specific TMP goals for the I-405 Improvement Project are as follows:

- Maintain travel lanes on I-405 mainline except as allowed per approved lane closure charts
- Limit delay to less than 30 minutes above normal recurring traffic delay on existing facilities
- Maintain traffic flow throughout the corridor and surrounding areas
- Provide a safe environment to the work force and traveling public

5.0 TMP CLASSIFICATION

The I-405 Improvement Project is considered a significant project requiring a “Major” TMP. The project is multi-jurisdictional in scope, encompassing multiple agencies including:

- Caltrans
- California Highway Patrol (CHP)
- City of Costa Mesa
- City of Fountain Valley
- City of Huntington Beach

- City of Garden Grove
- City of Westminster
- City of Long Beach
- City of Seal Beach
- Rossmoor Community (an incorporated section of Orange County)

The construction of this project is expected to take approximately 54 months. During this time, construction-related delays are anticipated along the I-405, I-605, SR-22 and SR-73 freeways and at interchanges as well as on the surrounding local arterials. Temporary and short term closures would occur intermittently throughout the construction duration. Full freeway lane, ramp and arterial street closures would also be required during night times and on weekends (55-hour closure) during various roadway and structure construction activities. Complete ramp closure up to 30 days is also necessary for some of the interchange ramps and prolonged closure ranging from 3 to 12 months is anticipated to facilitate construction of certain arterials and overcrossing structures.

6.0 PRELIMINARY STAGE CONSTRUCTION CONCEPTS

6.1 Construction Staging

There are numerous approaches to phase the construction of this 16-mile project corridor. Further constructability analysis will be performed during the final design. At this time, it is envisioned that the project would be constructed in multiple stages due to the scale of the project and the need to maintain traffic during construction. The following paragraphs present one potential concept for implementing the project construction, based on Alternative 3 which has the longest construction limits and the largest footprint.

Stage 1 – approximately 18 months

The following construction activities are proposed in this stage:

- Construction of sound walls from Fairview Road to McFadden Avenue
- Outside widening on NB & SB I-405 from Fairview Road to McFadden Avenue
- Widening of Harbor Boulevard UC (1 phase)
- Construction of new Harbor Boulevard SB on-ramp UC (1 phase)
- Construction of new Euclid Street SB on-ramp structure over the Santa Ana River (1 phase)
- Construction of new Euclid Street SB on-ramp structure over the OCSD driveway (1 phase)
- Widening of Santa Ana River Bridge, NB (1 phase)
- Widening of Santa Ana River Bridge, SB (1 phase)
- Demolition of existing and construction of new Slater Avenue OC (1 phase)
- Demolition of existing and construction of new Newland Street OC (1 phase)
- Demolition of existing and construction of new McFadden Avenue OC (1 phase)
- Demolition of existing and construction of new Bolsa Chica Road OC (2 phases)

Stage 2 – approximately 23 months

The following construction activities are proposed in this stage:

- Construction of sound walls from McFadden Avenue to Bolsa Chica Road
- Outside widening on NB & SB I-405 from McFadden Avenue to Bolsa Chica Road

- Outside widening on NB & SB I-405 from Bear Street to Fairview Road
- Median improvements on I-405 from Fairview Road to McFadden Avenue
- Improvements on SR-73 and associated Fairview Road ramps
- Demolition of existing and construction of new Fairview Road OC (2 phases)
- Demolition of existing and construction of new Ward Street OC (1 phase)
- Demolition of existing and construction of new Bushard Street OC (1 phase)
- Construction of Beach Boulevard NB loop on-ramp (N39-N405) structure (1 phase)
- Construction of Beach Boulevard SB loop on-ramp (S39-S405) structure (1 phase)
- Construction of tie-back walls at Beach Boulevard UC (1 phase)
- Demolition of existing and construction of new Bolsa Avenue OC (2 phases)
- Widening of Bolsa Overhead structure, NB (1 phase)
- Widening of Bolsa Overhead structure, SB (1 phase)
- Widening of Navy Overhead structure, NB (1 phase)
- Widening of Navy Overhead structure, SB (1 phase)
- Demolition of existing and construction of new Edwards Street OC (1 phase)

Stage 3 – approximately 26 months

The following construction activities are proposed in this stage:

- Construction of sound walls from Bear Street (on SR-73) to Fairview Road
- Median improvements on I-405 from SR-73 to Fairview Road
- Median improvements on I-405 from McFadden Avenue to Bolsa Chica Road
- Improvements on branch connectors between I-405 and SR-73
- Construction of new 405-73 Express/HOV Connector Separation (1 phase)
- Demolition of existing and construction of new Talbert Avenue OC (1 phase)
- Demolition of existing and construction of new Magnolia Street OC (2 phases)
- Construction of new SB Magnolia Street/Warner Avenue braided ramp structure (1 phase)
- Demolition of existing and construction of new Edinger Avenue OC (1 phase)
- Demolition of existing and construction of new Goldenwest Street OC (2 phases)
- Demolition of existing and construction of new Springdale Street OC (2 phases)

Stage 4 – approximately 29 months

The following construction activities are proposed in this stage:

- Construction of sound walls from Bolsa Chica Road to I-605
- Outside widening on NB & SB I-405 from Bolsa Chica Road to I-605
- Improvements on NB & SB I-605 and associated branch connectors
- Improvements on EB & WB SR-22 West and associated branch connectors
- Improvements on EB & WB SR-22 East and associated branch connectors
- Demolition of existing and construction of new Brookhurst Street OC (2 phases)
- Demolition of existing and construction of new Warner Avenue OC (2 phases)
- Construction of NB Magnolia Street/Warner Avenue braided ramp structure (1 phase)
- Demolition of existing and construction new Heil Avenue pedestrian OC (1 phase)
- Demolition of existing and construction of new Westminster Boulevard OC (2 phases)

Construction of interchange improvements (consisting of freeway ramp reconstruction, local arterial improvements, and overcrossing structure replacement) is envisioned to be staggered throughout the 4 main stages to minimize impacting two consecutive interchanges or closing two consecutive

on- or off-ramps at the same time. Arterials and overcrossing improvements that would add capacity over the existing condition are proposed in the earlier stages in efforts to ease traffic congestion during subsequent construction stages.

A diagram illustrating the anticipated construction timeline for major construction activities is included in this document as Attachment D. The construction timeline reflects an overlap between work items to be constructed in consecutive stages in order to accommodate the total construction schedule of about 54 months.

6.2 Closures and Lane Restrictions

During construction, there will be numerous different closures of the freeway mainline, branch connectors, interchange ramps and local arterials required to accommodate various construction activities. Closures of the roadway facilities are anticipated for the following work and may be temporary or short-term, overnight, during extended weekend (55-hour window from Friday night to Monday morning) or long-term:

- installation, moving and removal of k-rails
- striping and removal operations
- falsework erection and removal
- bridge demolition
- construction of new overcrossings and foundations
- widening of undercrossing structures and foundations
- structure approach slab construction
- installation of overhead signs and toll gantries
- installation of loop detectors
- placement of concrete pavement using rapid set concrete such as at ramp termini
- pavement and overlay operations
- utility work
- extension or modifications of flood control channel under roadway facilities

Lane reductions and restrictions are also anticipated on mainline, connector, ramp and arterial roadway facilities to accommodate construction activities. These restrictions may include:

- Narrower lane and shoulder widths
- Reduction in number of lanes
- Elimination of separate turn lanes at intersections
- Speed reduction due to sharper lane transition/taper

Arterial Closures

Long-term closure lasting up to 12 months may be employed during construction of certain streets and overcrossing structures in order to facilitate faster construction time and thus, allow quicker return of the public usage of the facility. Although impacts to local commuters, residents and local businesses would be more severe during the closure, the impacts would end sooner because the improvements would be completed quicker allowing the roadway to re-open to public faster. Potential locations for long-term closures include the following arterial improvements and structure replacements:

- Ward Street OC – 8 to 12 months
- Talbert Avenue OC – 8 to 12 months
- Slater Avenue OC – 8 to 12 months
- Bushard Street OC – 8 to 12 months
- Newland Street OC – 8 to 12 months
- Edinger Avenue OC – 8 to 12 months
- McFadden Avenue OC – 8 to 12 months
- Edwards Street OC – 8 to 12 months

Further evaluation and studies will be needed during the final design to determine locations and feasibility of arterial closures. For each of these closures, there are multiple alternate routes that can be used during street closures. Attachment E provides a scenario for alternate routes during these required closures.

Ramp Closures

Most interchange ramps are expected to be open for traffic during construction with periodic closure at night, during the weekend (55-hour closure), or for a period less than 10 days. Periodic temporary closure of these ramps is not expected to cause excessive inconvenience to the traveling public since the interchanges along I-405 are spaced approximately 1 mile apart, such that there are nearby alternate accesses to and from the freeway. No two consecutive off-ramps or two consecutive on-ramps in the same direction will be closed concurrently.

However, there are 12 ramps that will require complete closure for a period up to 30 days during reconstruction because the new ramp alignments are proposed over the existing alignments and there is limited space and right of way to accommodate a detour pavement. Interchange ramps that are expected to require up to 30 days of closure are:

- South Coast Drive NB off-ramp
- Fairview Road NB off-ramp
- Fairview Road NB on-ramp
- Fairview Road SB off-ramp
- Harbor Boulevard NB loop on-ramp
- Harbor Boulevard SB on-ramp
- Talbert Avenue SB on-ramp
- Warner Avenue SB on-ramp
- Magnolia Street SB off-ramp
- Bolsa Avenue SB on-ramp
- Westminster Boulevard SB on-ramp
- Bolsa Chica Road SB off-ramp

During closure of these ramps, alternative routes will be provided to motorists. Attachment F provides a scenario for detour routes during these long-term ramp closures. Further evaluation and studies will be needed during the final design to determine locations and feasibility of long-term ramp closures.

7.0 TMP STRATEGIES

The TMP is a specialized program designed to minimize the impacts of a construction project by applying a variety of techniques including Public Information, Motorist Information, Incident Management, Construction Strategies, Demand Management and Alternate Route Strategies. For the I-405 Improvement Project, the following TMP strategies are proposed based on the type of work planned, the geographic and demographic area and the anticipated traffic impacts:

- Public Information
- Motorist Information
- Incident Management
- Construction Strategies
- Demand Management
- Alternate Route Strategies
- Contingency Plans
- Coordination Elements

7.1 Public Information

The OCTA is expected to lead public relations and carry out a Public Awareness Campaign (PAC) during the final design and construction to provide the public with information relating to planned and on-going highway work. Construction activities, upcoming detours and/or lane closures, possible alternate routes, and alternate transportation modes information will be disseminated to the public via a number of methods including:

- Brochures and mailers to residents and businesses in targeted area to be mailed periodically throughout the entire construction period
- Press releases and news media events during key construction milestones that involve closures and changes in traffic patterns
- Paid advertisements through local newspapers (OC Register, Excelsior, Ngoui-Viet, Long Beach Press Telegram, and Daily Pilots) to be published approximately one month prior to start of construction with regular updates
- Community outreach/public meetings to be held at the beginning of each major construction phase
- A 24-hour telephone hotline providing automated daily update of construction activities and road closures
- Project website to be maintained by OCTA providing all-encompassing information about the project construction
- Direct e-mails or e-newsletters to residents and businesses in targeted area
- Community task force (local businesses/merchants) to help disseminate the information
- Posting of construction information at local libraries, schools and City's public work offices
- Social network sites such as Facebook and Twitter

7.2 Motorist Information

Motorist information strategies are used to relay near "real time" information regarding potential delays and available detours to motorists, enabling them to make travel plans accordingly. The following mechanisms will be employed to provide motorist information:

- Existing Changeable Message Signs (CMS) to report changing travel conditions
- Portable Changeable Message Signs (PCMS) to report changing travel conditions
- Stationary ground-mounted signs to provide information about immediate road conditions
- Traffic radio announcements
- Caltrans Highway Information Network (CHIN), 1-800-427-ROAD.

7.3 Incident Management

An incident is any event that interrupts traffic flow for a significant amount of time. An Incident Management Plan is proposed for this project to manage the effects of traffic incidents or vehicular breakdown in or near the work zone. The goal of the incident management strategies is to minimize the time to detect, respond to, and remove the incident from the roadway as safely and quickly as possible. Key components of incident management strategies are identified below.

- A Traffic Management Team (TMT) will be established to assist in managing traffic during incidents and planned lane closures. The TMT would include representatives from OCTA, local agencies and local law enforcement agencies, California Highway Patrol (CHP), and Caltrans Public Affairs, Traffic Operations, Design, and Construction units.
- The District Traffic Management Center (TMC) will be used for coordinating and managing traffic and incident information dissemination.
- Existing traffic surveillance equipments including closed circuit television cameras (CCTV) and vehicle detection/monitoring systems in conjunction with additional temporary systems will be used to help detect incidents and manage traffic through the construction area.
- The existing Freeway Service Patrol (FSP) that currently patrols I-405 during the morning and afternoon peak hours and removes disabled vehicles from the freeway at no charge to the motorist under the auspices of Caltrans will be expanded during certain phases of construction. A supplemental team of FSP towed trucks will be provided beyond the peak hour periods during certain construction stages, especially when there would be no shoulders on the mainline to allow motorists to move away from the travel way.
- A Construction Zone Enhanced Enforcement Program (COZEEP) will be established for the entire construction period. A highly visible CHP presence would alert motorists that road work is being performed and that motorist behavior is under surveillance. COZEEP services are especially beneficial during night work and when construction workers are on foot in the work zone.

7.4 Construction Strategies

A major part of construction strategies will be implemented through staging construction and incorporated into the construction contract documents (traffic handling plans, construction area sign plans, contract special provisions, etc.). These strategies are designed to minimize impacts of construction activities on traffic circulation and include:

- Lane closure restrictions during holidays and special local events

- Closure of secondary streets during construction to allow quick construction and re-opening
- Lane modifications (lane reductions, shifts) to maintain the number of lanes needed
- Allowing night work and extended weekend work
- Maintaining business access
- Maintaining pedestrian and bicycle access
- Usage of rapid strength concrete at selected locations such as ramp terminal and intersection areas to accelerate construction and reduce closure duration
- Adding liquidated damages clause

A supplemental construction strategy under consideration for this project is the use of an incentive/disincentive program to motivate the contractor to achieve the overall construction schedule and minimize impacts to traveling public and local communities. An incentive/disincentive payment could be programmed for intermediate milestones or for the final completion of the project contracted work. The incentive/disincentive payment clause would need to be included in the contract special provisions during the final design.

7.5 Demand Management

This strategy involves promoting the use of public transit, ride sharing and variable work hours to reduce the amount of traffic using the freeway and roadways in and around construction zone. Through the public awareness campaign, large employers will be urged to consider staggered working hours and encourage their employees to use the OCTA transit system and rideshare resources which includes six park-and-ride lots along the I-405 corridor. Incentive programs such as free transit tickets and free/discounted merchant coupons for rideshare participants could be used to attract participants.

7.6 Alternate Route Strategies

Alternate routes and detours will be used to give motorists the opportunity to avoid the work zone by diverting to other highway or adjacent surface streets. Alternate routes and detours will be provided in the contract documents during the final design. Primary and major arterials surrounding the project area depicted in Attachment E will be used as alternate and detour routes during construction of various overcrossing structures and arterial improvements. Attachment F provides alternate and detour routes for interchange ramps that require closure up to 30 days during reconstruction.

Supplemental traffic analysis along alternate and detour routes may need to be performed during the final design phase to evaluate roadway and intersection performance and mitigation measures in response to added traffic. Potential mitigations that could be made on alternate and detour routes include:

- Street/intersection improvements (widening, pavement rehabilitation, removal of median, restriping, etc.) to provide added capacity to handle detour traffic
- Signal improvements, adjustment of signal timing and/or signal coordination to increase vehicle throughput, improve traffic flow and optimize intersection capacity
- Turn restrictions at intersections and roadways necessary to reduce congestion and improve safety

- Parking restrictions on alternate and detour routes during work hours to increase capacity, reduce traffic conflicts and improve access

7.7 Contingency Plans

Contingency plans will need to be developed during the final design phase to address unexpected events that could impact construction operations and traffic handling during critical work operations. Critical work operations are operations that require closure of a lane, ramp or shoulder such as:

- Roadway excavation
- Bridge demolition
- Bridge work
- Erection and removal of falsework
- Pavement operations
- Striping

Construction Operations Contingency Plan

Contract special provisions to be prepared in the final design would require the contractor to develop a Construction Operations Contingency Plan to identify elements that could potentially fail and cause delayed opening of lane closures, and provide the alternatives to ensure continuing operations and on-time opening of traffic lanes for each of the identified critical work operations. Elements that will be addressed in the plan include:

- Delayed construction operations
- Equipment breakdown
- Unavailable materials
- Bad weather
- Heavier traffic than expected

Traffic Handling Contingency Plan

A Traffic Handling Contingency Plan is typically developed during the final design with cooperation of the Caltrans Division of Traffic Operations to identify traffic handling contingency strategies to be employed in the event of work zone incidents or late lane closure pickups. Traffic handling contingency strategies will include procedures/methods for:

- Notification of incident/late closure pickup to the TMC, CHP, Highway Advisory Radio system, and the media
- Request for TMT assistance
- Activation of CMS and PCMS
- Activation of a detour
- Provision of emergency access through construction zones and during road closures

7.8 Coordination Elements

Emergency Response

Coordination with local jurisdictions and emergency service providers (CHP, local police, fire, paramedics, etc.) will be made during the final design to identify emergency service routes that serve hospitals, fire/police stations, emergency shelters, emergency command centers and other facilities that provide essential services in times of emergencies within the study area. These emergency service routes would be maintained during construction or alternate routes provided. Alternate emergency service routes to be used during construction would need to be coordinated with emergency service providers. Construction contract documents would require that emergency service providers be notified in advance prior to any lane closures, interruptions on emergency service routes, or changes in traffic control. Following are emergency service providers that have been identified to provide emergency responses to the area surrounding the project site:

Fire Protection Services:

- Santa Ana Fire Department
- Costa Mesa Fire Department
- Fountain Valley Fire Department
- Huntington Beach Fire Department
- Orange County Fire Authority (for Westminster, Seal Beach, Rossmoor and Los Alamitos)
- Garden Grove Fire Department
- Seal Beach Fire Department
- Long Beach Fire Department
- Los Angeles County Fire Department (for Hawaiian Garden, Long Beach and Lakewood)

Police Protection Services:

- Santa Ana Police Department
- Costa Mesa Police Department
- Fountain Valley Police Department
- Huntington Beach Police Department
- Westminster Police Department
- Garden Grove Police Department
- Seal Beach Police Department
- Long Beach Police Department
- Orange County Sheriff's Department (for Rossmoor)
- Los Alamitos Police Department
- Los Angeles County Sheriff's Department (for Hawaiian Gardens and Lakewood)
- Long Beach Police Department

Transit Operations

Transit agencies will be informed about the temporary lane and street closures during the final design.

Commercial Vehicle Operations

Commercial vehicle operators will be notified of all planned construction activities, implementation of detours or road closures. Contacts for commercial vehicles include:

- California Trucking Association (CTA) in Sacramento, CA, Phone: (916) 373-3500
- Regional Truck Permit Office in San Bernardino, Phone (909) 388-7001

8.0 TMP COORDINATION AND REVIEW

During the course of project construction, the TMT will observe traffic conditions and make recommendations to the Resident Engineer concerning any changes that need to be made with respect to Traffic Management. The TMP Coordinator will work closely with the TMT in order to develop timely recommendations regarding: closing or opening of mainline travel lanes; changing messages on the portable or permanent CMS; the signing along detour/alternate routes; and other relevant activities. The collection of relevant traffic data, such as the actual traffic delay that occurs during construction should be collected and given to the TMP Coordinator.

After the project construction is completed, a follow-up report will be prepared that discusses the effectiveness of the TMP elements used and provides “lessons learned” from this project.

9.0 ATTACHMENTS

- A Project Vicinity and Location Maps
- B Existing and Proposed Lane Configurations
- C TMP Data Sheets
- D Preliminary Stage Construction Timeline
- E Alternative Route Maps for Arterial Closures
- F Alternative Route Maps for Ramp Closures

ATTACHMENT A

Project Location Map



PROJECT VICINITY MAP

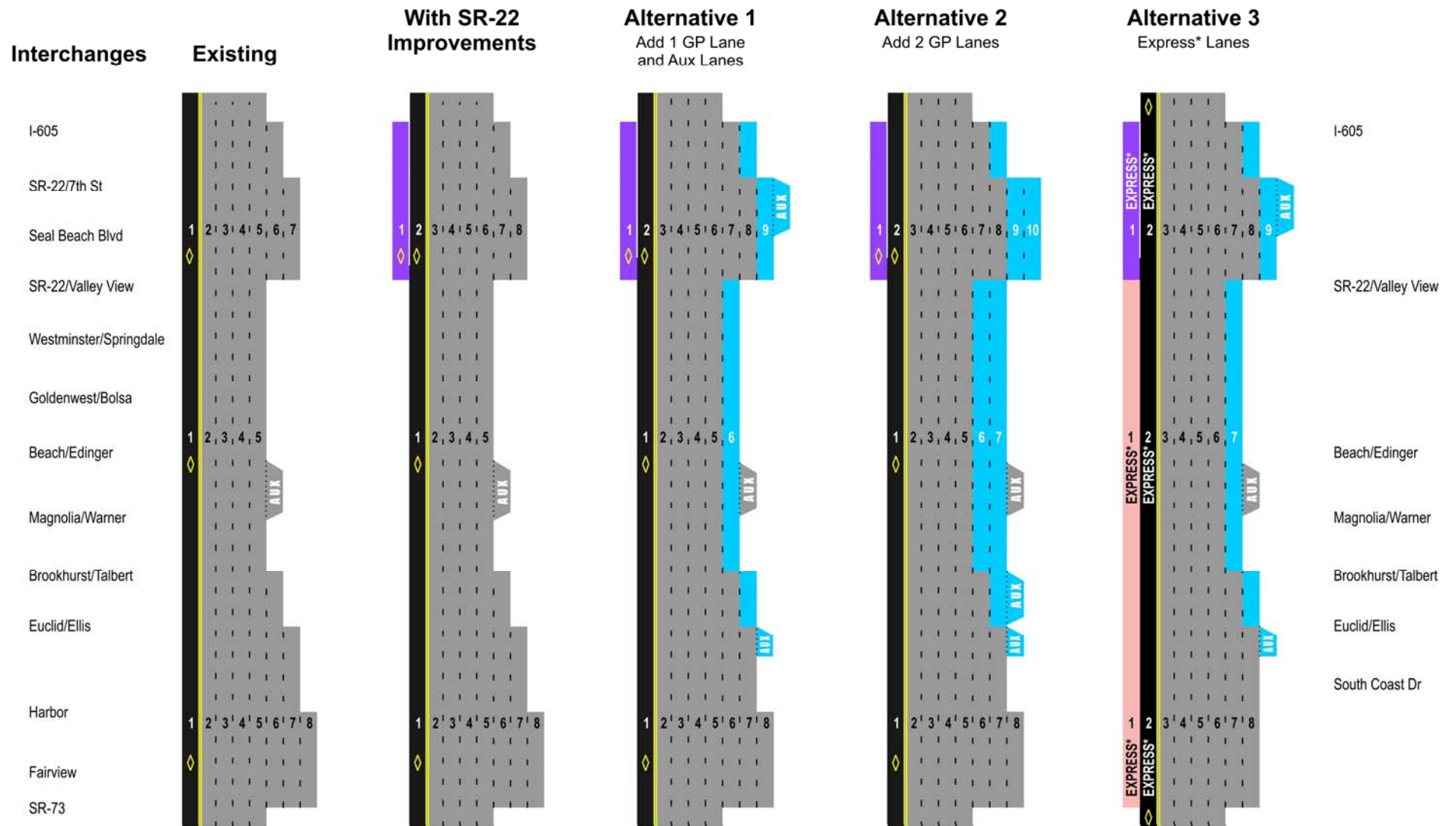


PROJECT LOCATION MAP

ATTACHMENT B

Existing and Proposed Lane Configurations

Lane Configurations, Northbound



LEGEND

Existing General Purpose Lane

Existing Carpool Lane

New SR22 Carpool Lane

New General Purpose Lane

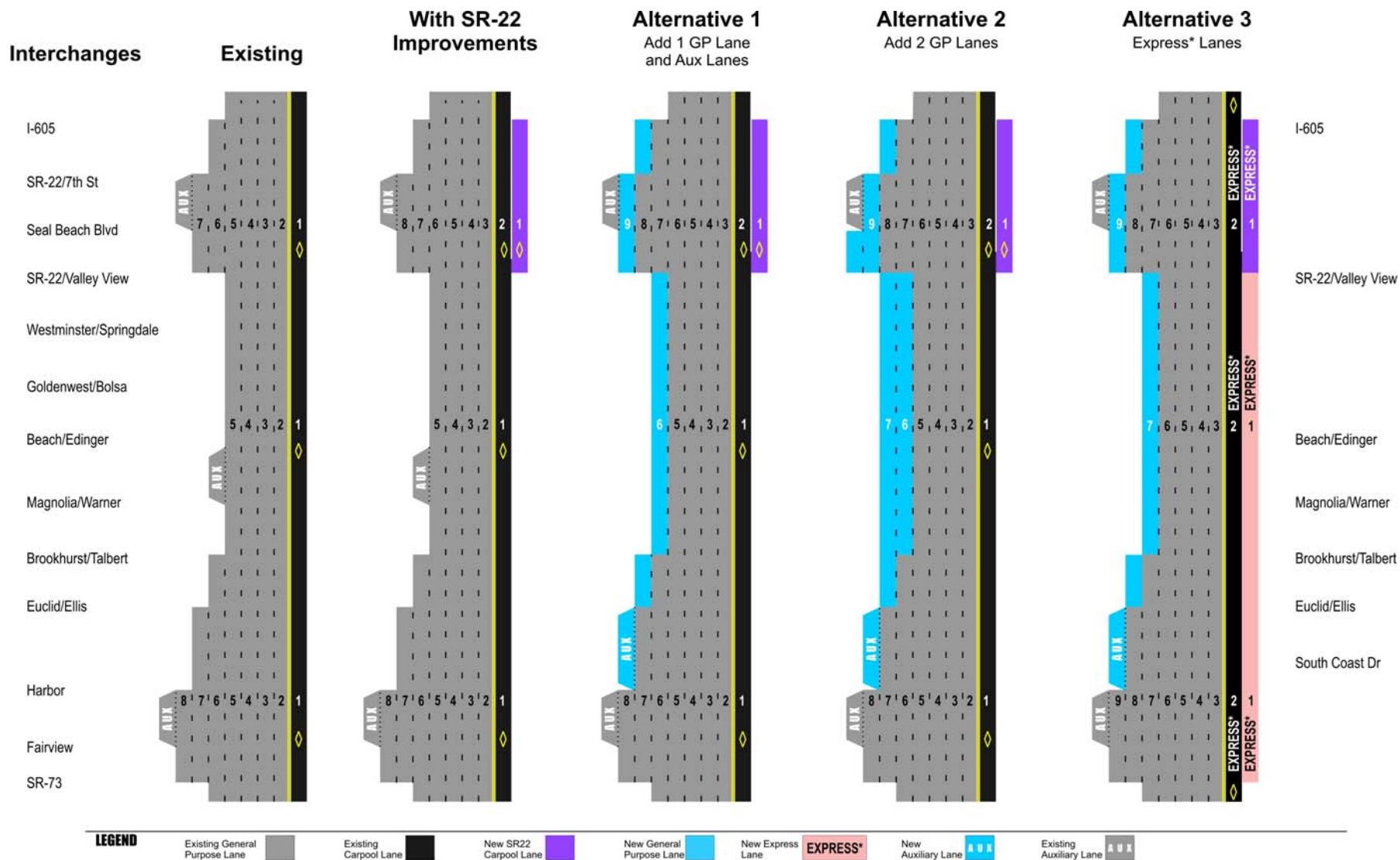
New Express Lane

EXPRESS*

New Auxiliary Lane

Existing Auxiliary Lane

Lane Configurations, Southbound



ATTACHMENT C

TMP Data Sheets

TRANSPORTATION MANAGEMENT PLAN DATA SHEET

(Preliminary TMP Elements and Costs)

12-Ora-22 PM R0.5/R0.7
12-Ora-22 PM R0.7/R3.8
12-Ora-73 PM R27.2/R27.8
12-Ora-405 PM 9.3/24.2
07-LA-405 PM 0.0/1.2
12-Ora-605 PM 3.5/R1.6
07-LA-605PM R0.0/R1.2

Co/Rte/PM _____ Project No. 12000001800 Alternative No. 1
 Project Limit I-405 from 0.2 Miles South of Bristol Street Overcrossing to 1.4 Miles North of I-605 and portions of SR-22, SR-73, and I-605
 Project Description Construct one general purpose lane widening on each side of I-405 and interchange improvements from Euclid Street to I-605

1) Public Information

<input checked="" type="checkbox"/> a. Brochures and Mailers	\$ 180,000
<input checked="" type="checkbox"/> b. Press Release	
<input checked="" type="checkbox"/> c. Paid Advertising	\$ 130,000
<input type="checkbox"/> d. Public Information Center/Kiosk	\$ 0
<input checked="" type="checkbox"/> e. Public Meeting/Speakers Bureau	\$ 0
<input checked="" type="checkbox"/> f. Telephone Hotline	
<input checked="" type="checkbox"/> g. Internet	
<input checked="" type="checkbox"/> h. Others <u>Library & School Postings and Email Notifications</u>	\$ 0

2) Motorists Information Strategies

<input checked="" type="checkbox"/> a. Changeable Message Signs (Fixed)	\$ 0
<input checked="" type="checkbox"/> b. Changeable Message Signs (Portable)	\$ 150,000
<input checked="" type="checkbox"/> c. Ground Mounted Signs	\$ 30,000
<input checked="" type="checkbox"/> d. Highway Advisory Radio	\$ 0
<input checked="" type="checkbox"/> e. Caltrans Highway Information Network (CHIN)	
<input type="checkbox"/> f. Others _____	\$ 0

3) Incident Management

<input checked="" type="checkbox"/> a. Construction Zone Enhanced Enforcement Program (COZEEP)	\$ 650,000
<input checked="" type="checkbox"/> b. Freeway Service Patrol	\$ 400,000
<input checked="" type="checkbox"/> c. Traffic Management Team	\$ 0
<input type="checkbox"/> d. Helicopter Surveillance	\$ 0
<input checked="" type="checkbox"/> e. Traffic Surveillance Stations (Loop Detector and CCTV)	\$ 1,000,000

<input type="checkbox"/> f. Others _____	\$ 0
--	------

4) Construction Strategies

<input checked="" type="checkbox"/> a. Lane Closure Chart	
<input type="checkbox"/> b. Reversible Lanes	
<input type="checkbox"/> c. Total Facility Closure	
<input type="checkbox"/> d. Contra Flow	
<input type="checkbox"/> e. Truck Traffic Restrictions	\$ 0
<input type="checkbox"/> f. Reduced Speed Zone	\$ 0
<input checked="" type="checkbox"/> g. Connector and Ramp Closures	
<input checked="" type="checkbox"/> h. Incentive and Disincentive	\$ 1,500,000
<input type="checkbox"/> i. Moveable Barrier	\$ 0
<input type="checkbox"/> j. Others _____	\$ 0

5) Demand Management

<input type="checkbox"/> a. HOV Lanes/Ramps (New or Convert)	\$
<input type="checkbox"/> b. Park and Ride Lots	\$
<input type="checkbox"/> c. Rideshare Incentives	\$
<input type="checkbox"/> d. Variable Work Hours	
<input type="checkbox"/> e. Telecommute	
<input type="checkbox"/> f. Ramp Metering (Temporary Installation)	\$
<input type="checkbox"/> g. Ramp Metering (Modify Existing)	\$
<input type="checkbox"/> h. Others _____	\$

6) Alternative Route Strategies

<input type="checkbox"/> a. Add Capacity to Freeway Connector	\$
<input checked="" type="checkbox"/> b. Street Improvement (widening, traffic signal, etc)	\$ 1,000,000
<input type="checkbox"/> c. Traffic Control Officers	\$
<input type="checkbox"/> d. Parking Restrictions	
<input type="checkbox"/> e. Others _____	\$

7) Other Strategies

<input type="checkbox"/> a. Application of New Technology	\$
<input checked="" type="checkbox"/> b. Others Contingency Plans	\$ 0
<input checked="" type="checkbox"/> c. Others Coordination Elements	\$ 0

TOTAL ESTIMATED COST OF TMP ELEMENTS =	\$ 5,040,000
---	---------------------

PROJECT NOTES:

See TMP report.

PREPARED BY:

Kanogporn S. Tiberi, P.E.
Parsons

Date

APPROVAL RECOMMENDED BY:

Fred Faizi, P.E., Acting Chief
Design Branch C

Date

APPROVED BY:

Jason Osborne, P.E.
Office of Traffic Investigations

Date

TRANSPORTATION MANAGEMENT PLAN DATA SHEET

(Preliminary TMP Elements and Costs)

12-Ora-22 PM R0.5/R0.7
12-Ora-22 PM R0.7/R3.8
12-Ora-73 PM R27.2/R27.8
12-Ora-405 PM 9.3/24.2
07-LA-405 PM 0.0/1.2
12-Ora-605 PM 3.5/R1.6
07-LA-605PM R0.0/R1.2

Co/Rte/PM _____ Project No. **12000001800** Alternative No. **2**
 Project Limit I-405 from 0.2 Miles South of Bristol Street Overcrossing to 1.4 Miles North of I-605 and portions of SR-22, SR-73, and I-605
 Project Description Construct two general-purpose lane widening on each side of I-405 and interchange improvements from Euclid Street to I-605

1) Public Information

<input checked="" type="checkbox"/> a. Brochures and Mailers	\$ 200,000
<input checked="" type="checkbox"/> b. Press Release	
<input checked="" type="checkbox"/> c. Paid Advertising	\$ 150,000
<input type="checkbox"/> d. Public Information Center/Kiosk	\$ 0
<input checked="" type="checkbox"/> e. Public Meeting/Speakers Bureau	\$ 0
<input checked="" type="checkbox"/> f. Telephone Hotline	
<input checked="" type="checkbox"/> g. Internet	
<input checked="" type="checkbox"/> h. Others <u>Library & School Postings and Email Notifications</u>	\$ 0

2) Motorists Information Strategies

<input checked="" type="checkbox"/> a. Changeable Message Signs (Fixed)	\$ 0
<input checked="" type="checkbox"/> b. Changeable Message Signs (Portable)	\$ 150,000
<input checked="" type="checkbox"/> c. Ground Mounted Signs	\$ 30,000
<input checked="" type="checkbox"/> d. Highway Advisory Radio	\$ 0
<input checked="" type="checkbox"/> e. Caltrans Highway Information Network (CHIN)	
<input type="checkbox"/> f. Others _____	\$ 0

3) Incident Management

<input checked="" type="checkbox"/> a. Construction Zone Enhanced Enforcement Program (COZEEP)	\$ 900,000
<input checked="" type="checkbox"/> b. Freeway Service Patrol	\$ 400,000
<input checked="" type="checkbox"/> c. Traffic Management Team	\$ 0
<input type="checkbox"/> d. Helicopter Surveillance	\$ 0
<input checked="" type="checkbox"/> e. Traffic Surveillance Stations (Loop Detector and CCTV)	\$ 1,000,000

<input type="checkbox"/> f. Others _____	\$ 0
--	------

4) Construction Strategies

<input checked="" type="checkbox"/> a. Lane Closure Chart	
<input type="checkbox"/> b. Reversible Lanes	
<input type="checkbox"/> c. Total Facility Closure	
<input type="checkbox"/> d. Contra Flow	
<input type="checkbox"/> e. Truck Traffic Restrictions	\$ 0
<input type="checkbox"/> f. Reduced Speed Zone	\$ 0
<input checked="" type="checkbox"/> g. Connector and Ramp Closures	
<input checked="" type="checkbox"/> h. Incentive and Disincentive	\$ 1,500,000
<input type="checkbox"/> i. Moveable Barrier	\$ 0
<input type="checkbox"/> j. Others _____	\$ 0

5) Demand Management

<input type="checkbox"/> a. HOV Lanes/Ramps (New or Convert)	\$
<input type="checkbox"/> b. Park and Ride Lots	\$
<input type="checkbox"/> c. Rideshare Incentives	\$
<input type="checkbox"/> d. Variable Work Hours	
<input type="checkbox"/> e. Telecommute	
<input type="checkbox"/> f. Ramp Metering (Temporary Installation)	\$
<input type="checkbox"/> g. Ramp Metering (Modify Existing)	\$
<input type="checkbox"/> h. Others _____	\$

6) Alternative Route Strategies

<input type="checkbox"/> a. Add Capacity to Freeway Connector	\$
<input checked="" type="checkbox"/> b. Street Improvement (widening, traffic signal, etc)	\$ 1,000,000
<input type="checkbox"/> c. Traffic Control Officers	\$
<input type="checkbox"/> d. Parking Restrictions	
<input type="checkbox"/> e. Others _____	\$

7) Other Strategies

<input type="checkbox"/> a. Application of New Technology	\$
<input checked="" type="checkbox"/> b. Others Contingency Plans	\$ 0
<input checked="" type="checkbox"/> c. Others Coordination Elements	\$ 0

TOTAL ESTIMATED COST OF TMP ELEMENTS =	\$ 5,330,000
---	---------------------

PROJECT NOTES:

See TMP report.

PREPARED BY:

Kanogporn S. Tiberi, P.E.
Parsons

Date

APPROVAL RECOMMENDED BY:

Fred Faizi, P.E., Acting Chief
Design Branch C

Date

APPROVED BY:

Jason Osborne, P.E.
Office of Traffic Investigations

Date

TRANSPORTATION MANAGEMENT PLAN DATA SHEET

(Preliminary TMP Elements and Costs)

12-Ora-22 PM R0.5/R0.7
 12-Ora-22 PM R0.7/R3.8
 12-Ora-73 PM R27.2/R27.8
 12-Ora-405 PM 9.3/24.2
 07-LA-405 PM 0.0/1.2
 12-Ora-605 PM 3.5/R1.6
 07-LA-605PM R0.0/R1.2

Co/Rte/PM _____ Project No. 12000001800 Alternative No. 3
 Project Limit I-405 from 0.2 Miles South of Bristol Street Overcrossing to 1.4 Miles North of I-605 and portions of SR-22, SR-73, and I-605
 Project Description Construct one general-purpose lane widening from Euclid Street to I-605 and one median lane from SR-73 to SR-22 East to operate with existing HOV lanes as express lanes on each side of I-405

1) Public Information

<input checked="" type="checkbox"/> a. Brochures and Mailers	\$ 250,000
<input checked="" type="checkbox"/> b. Press Release	
<input checked="" type="checkbox"/> c. Paid Advertising	\$ 160,000
<input type="checkbox"/> d. Public Information Center/Kiosk	\$ 0
<input checked="" type="checkbox"/> e. Public Meeting/Speakers Bureau	\$ 0
<input checked="" type="checkbox"/> f. Telephone Hotline	
<input checked="" type="checkbox"/> g. Internet	
<input checked="" type="checkbox"/> h. Others <u>Library & School Postings and Email Notifications</u>	\$ 0

2) Motorists Information Strategies

<input checked="" type="checkbox"/> a. Changeable Message Signs (Fixed)	\$ 0
<input checked="" type="checkbox"/> b. Changeable Message Signs (Portable)	\$ 150,000
<input checked="" type="checkbox"/> c. Ground Mounted Signs	\$ 30,000
<input checked="" type="checkbox"/> d. Highway Advisory Radio	\$ 0
<input checked="" type="checkbox"/> e. Caltrans Highway Information Network (CHIN)	
<input type="checkbox"/> f. Others _____	\$ 0

3) Incident Management

<input checked="" type="checkbox"/> a. Construction Zone Enhanced Enforcement Program (COZEEP)	\$ 1,000,000
<input checked="" type="checkbox"/> b. Freeway Service Patrol	\$ 480,000
<input checked="" type="checkbox"/> c. Traffic Management Team	\$ 0
<input type="checkbox"/> d. Helicopter Surveillance	\$ 0

<input checked="" type="checkbox"/> e. Traffic Surveillance Stations (Loop Detector and CCTV)	\$ 1,000,000
<input type="checkbox"/> f. Others _____	\$ 0

4) Construction Strategies

<input checked="" type="checkbox"/> a. Lane Closure Chart	
<input type="checkbox"/> b. Reversible Lanes	
<input type="checkbox"/> c. Total Facility Closure	
<input type="checkbox"/> d. Contra Flow	
<input type="checkbox"/> e. Truck Traffic Restrictions	\$ 0
<input type="checkbox"/> f. Reduced Speed Zone	\$ 0
<input checked="" type="checkbox"/> g. Connector and Ramp Closures	
<input checked="" type="checkbox"/> h. Incentive and Disincentive	\$ 1,500,000
<input type="checkbox"/> i. Moveable Barrier	\$ 0
<input type="checkbox"/> j. Others _____	\$ 0

5) Demand Management

<input type="checkbox"/> a. HOV Lanes/Ramps (New or Convert)	\$
<input type="checkbox"/> b. Park and Ride Lots	\$
<input type="checkbox"/> c. Rideshare Incentives	\$
<input type="checkbox"/> d. Variable Work Hours	
<input type="checkbox"/> e. Telecommute	
<input type="checkbox"/> f. Ramp Metering (Temporary Installation)	\$
<input type="checkbox"/> g. Ramp Metering (Modify Existing)	\$
<input type="checkbox"/> h. Others _____	\$

6) Alternative Route Strategies

<input type="checkbox"/> a. Add Capacity to Freeway Connector	\$
<input checked="" type="checkbox"/> b. Street Improvement (widening, traffic signal, etc)	\$ 1,200,000
<input type="checkbox"/> c. Traffic Control Officers	\$
<input type="checkbox"/> d. Parking Restrictions	
<input type="checkbox"/> e. Others _____	\$

7) Other Strategies

<input type="checkbox"/> a. Application of New Technology	\$
<input checked="" type="checkbox"/> b. Others Contingency Plans	\$ 0
<input checked="" type="checkbox"/> c. Others Coordination Elements	\$ 0

TOTAL ESTIMATED COST OF TMP ELEMENTS =	\$ 5,770,000
---	---------------------

PROJECT NOTES:

See TMP report.

PREPARED BY:

Kanogporn S. Tiberi, P.E.
Parsons

Date

APPROVAL RECOMMENDED BY:

Fred Faizi, P.E., Acting Chief
Design Branch C

Date

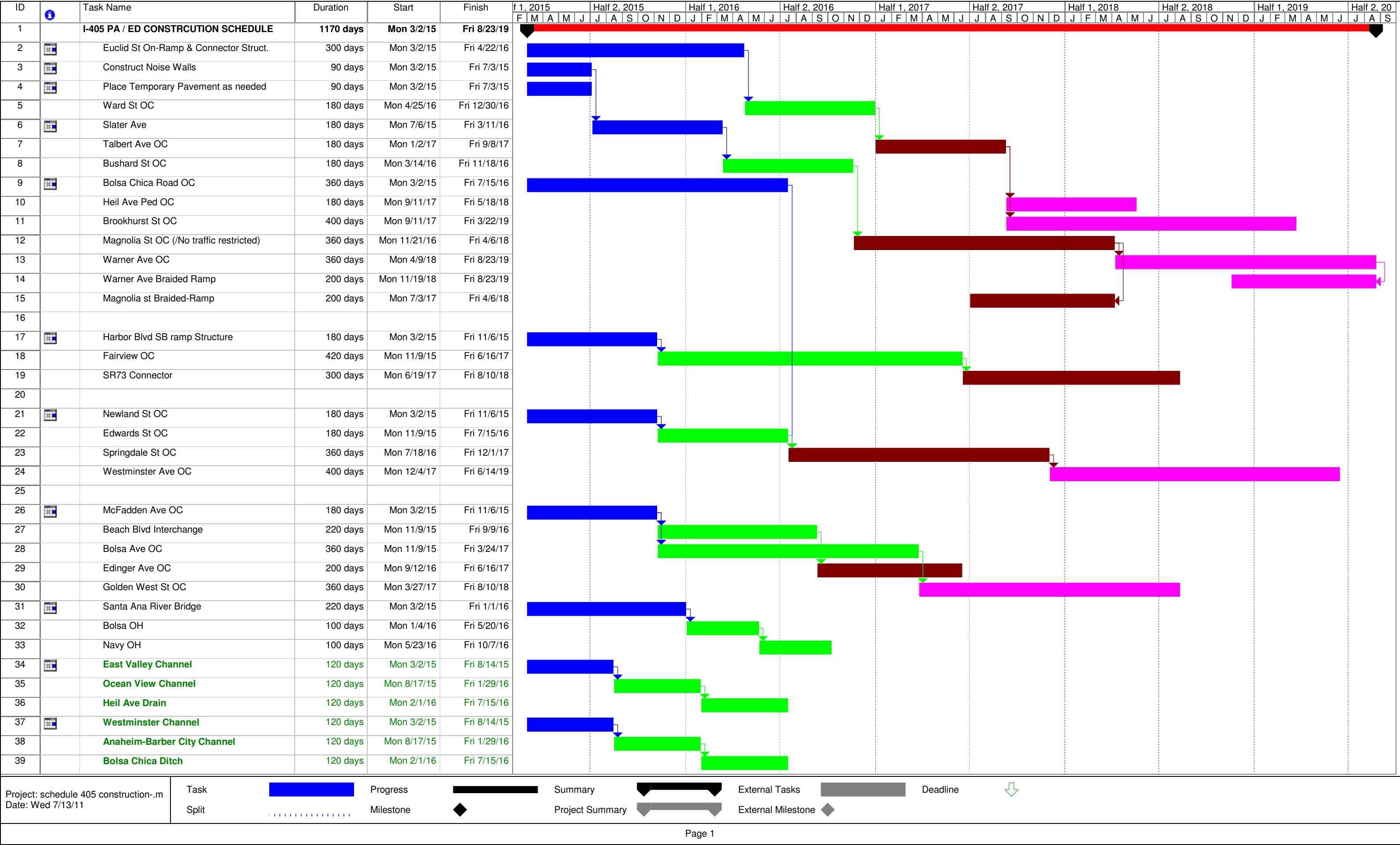
APPROVED BY:

Jason Osborne, P.E.
Office of Traffic Investigations

Date

ATTACHMENT D

Preliminary Stage Construction Timeline

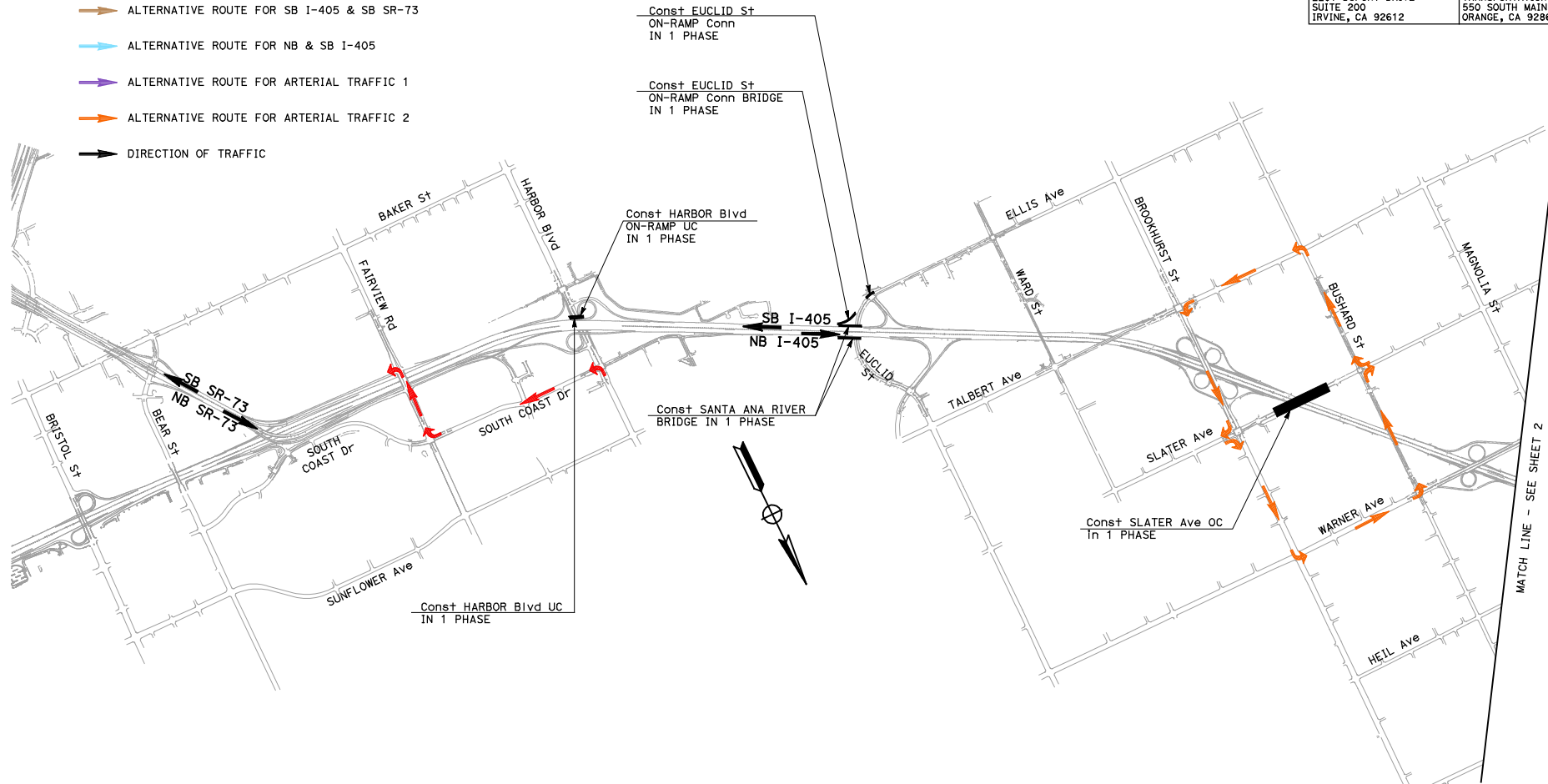


ATTACHMENT E

Alternative Route Maps for Arterial Closures

LEGEND:


- Const IN THIS STAGE
- ➡ ALTERNATIVE ROUTE FOR SB SR 73
- ➡ ALTERNATIVE ROUTE FOR NB I-405
- ➡ ALTERNATIVE ROUTE FOR SB I-405
- ➡ ALTERNATIVE ROUTE FOR SB I-405 & SB SR-73
- ➡ ALTERNATIVE ROUTE FOR NB & SB I-405
- ➡ ALTERNATIVE ROUTE FOR ARTERIAL TRAFFIC 1
- ➡ ALTERNATIVE ROUTE FOR ARTERIAL TRAFFIC 2
- ➡ DIRECTION OF TRAFFIC



**ALTERNATIVE ROUTE MAP
(STAGE 1)**

SHEET - 1

DIST	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12,7	Oran	LA	22,73	405,605	80,500,3,80,745,8	821,2/821,8,9,3/84,2
REGISTERED CIVIL ENGINEER DATE PLANS APPROVAL DATE THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET. PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612 ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863						

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR	DATE
		CHECKED BY	DATE	

DIST	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12,7	Oran	LA	22,73	80,500.3, 80,748.8 821.2/821.8, 8.9.3/84.2 405,605		

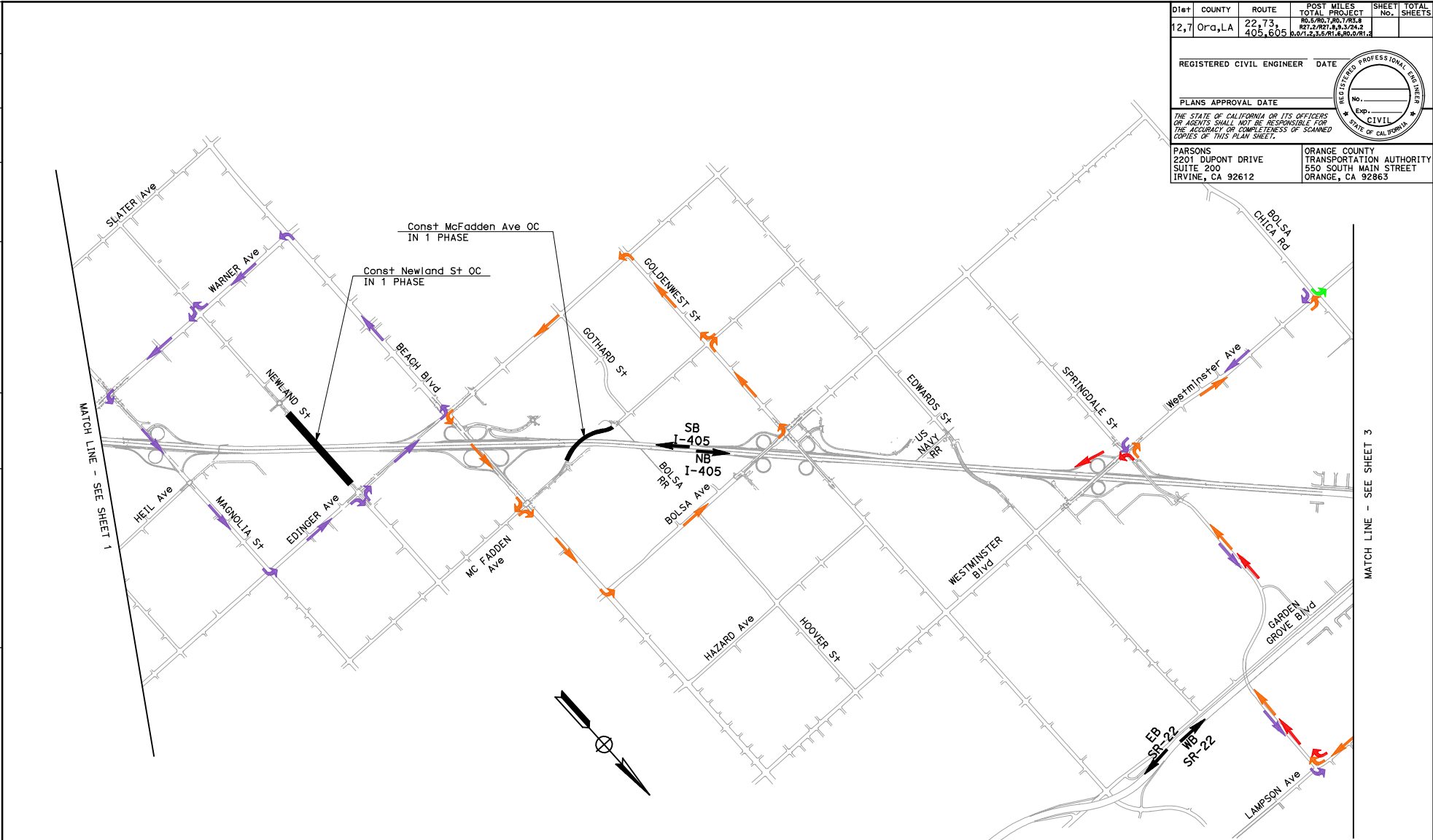
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PARSONS
2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612


ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 SOUTH MAIN STREET
ORANGE, CA 92863



ALTERNATIVE ROUTE MAP
(STAGE 1)

SHEET - 2

LAST REVISION DATE PLOTTED => 8/16/2011
00-00-00 TIME PLOTTED => 9:37:45 AM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR	DATE
		CHECKED BY	DATE	



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12,7	Oran	LA	22,73 405,605	81,500,1,80,1,81,8 821,2/821,8,9,3/84,2 8,071,2,2,5,8/81,6,80,0/81,2	

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863
---	--

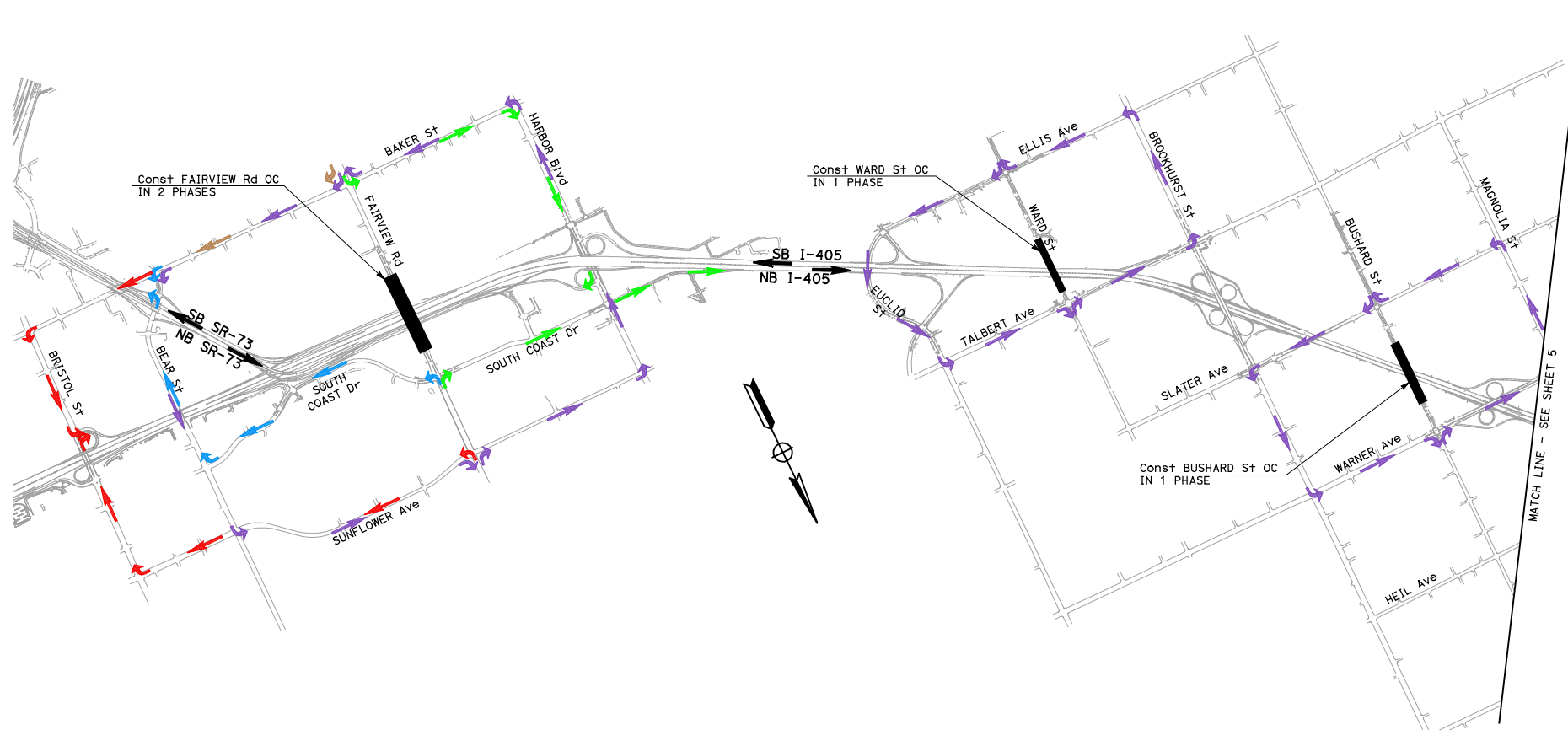
**ALTERNATIVE ROUTE MAP
(STAGE 1)**

SHEET - 3

LAST REVISION DATE PLOTTED => 8/16/2011
00-00-00 TIME PLOTTED => 9:37:47 AM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED

DIST	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12,7	Oran	LA	22,73	80,500.3, 80,748.8 405,605 827,2/827,8, 9,3/84,2 8,071,2,2,5,8/81,6,80,0/81,7		
REGISTERED CIVIL ENGINEER DATE						
PLANS APPROVAL DATE						
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.						
PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612			ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863			



ALTERNATIVE ROUTE MAP
(STAGE 2)
SHEET - 4

LAST REVISION DATE PLOTTED => 8/16/2011
00-00-00 TIME PLOTTED => 9:37:55 AM

REGISTERED CIVIL ENGINEER DATE 

PLANS APPROVAL DATE _____ RE No. _____ ER _____

THE STATE OF CALIFORNIA OR ITS OFFICERS
OR AGENTS SHALL NOT BE RESPONSIBLE FOR
THE ACCURACY OR COMPLETENESS OF SCANNED
COPIES OF THIS PLAN SHEET.

PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863
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PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863
---	--

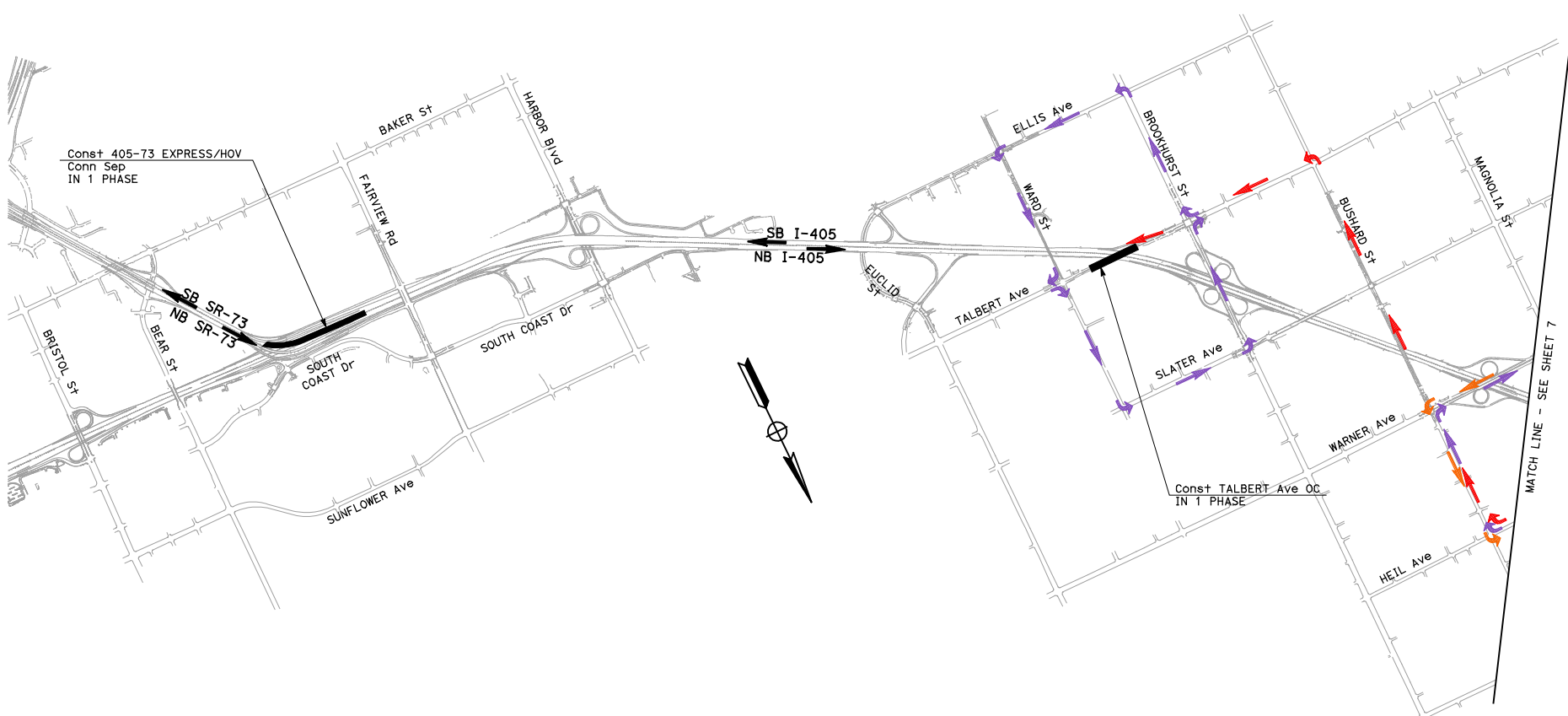


SHEET - 5



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED

DIST	COUNTY	ROUTE	POST MILES	SHEET	TOTAL
12,7	OranLA	22,73 405,605	TOTAL PROJECT 80.5/80.3/80.1/80.8 827.2/827.8/827.3/824.2 8,071.2/8,068.6/8,060.0/8,051.4	No.	SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE			No.		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.			Exp. No.		
PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612			ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863		



**ALTERNATIVE ROUTE MAP
(STAGE 3)**
SHEET - 6

LAST REVISION DATE PLOTTED => 8/16/2011
00-00-00 TIME PLOTTED => 9:38:05 AM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONSULTANT FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY

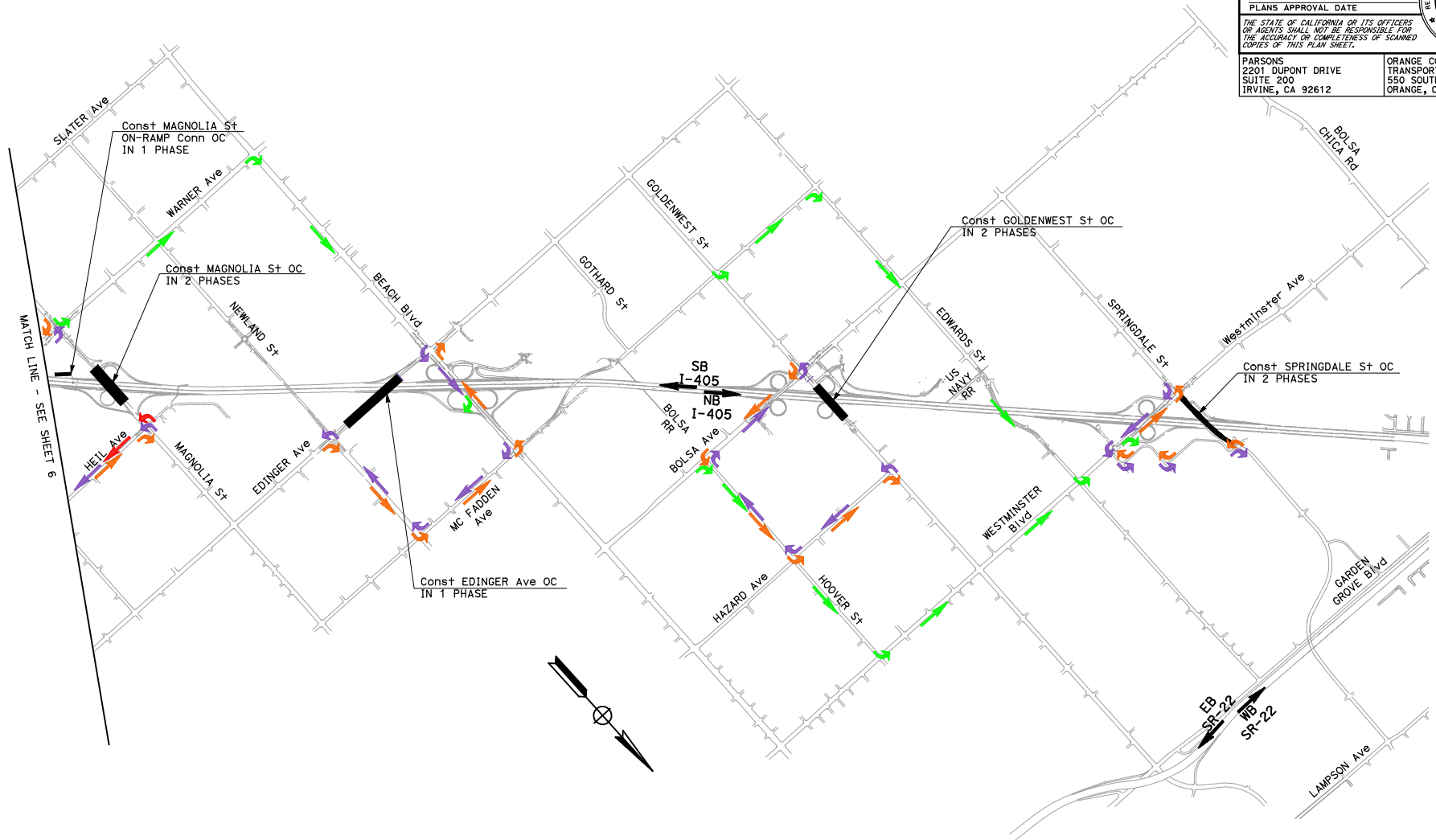
CHECKED BY

REVISOR

DATE

REVISOR

DATE



DIST	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12,7	Oran	LA	22,73	405,605	80,500,3,80,7,48,8	821,2/821,8,9,3/84,2

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PARSONS
2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 SOUTH MAIN STREET
ORANGE, CA 92863

ALTERNATIVE ROUTE MAP
(STAGE 3)

SHEET - 7

LAST REVISION DATE PLOTTED => 8/16/2011
00-00-00 TIME PLOTTED => 9:38:07 AM

REVISED BY				
DATE REVISED				

CALCULATED- DESIGNED BY	X
CHECKED BY	

X	PORTATION	CONSULTANT	FUNCTIONAL	SUPERVISORS	X
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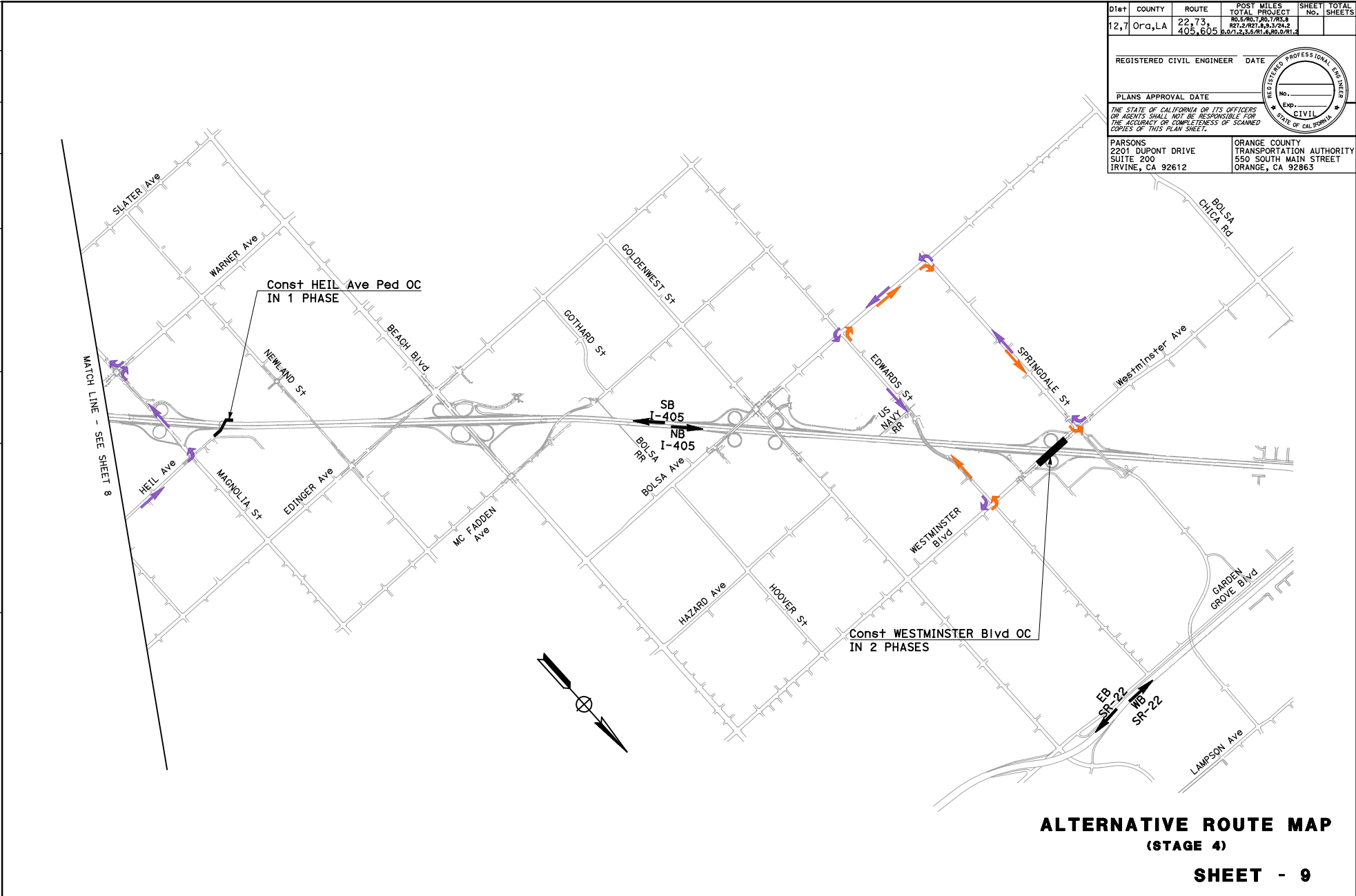
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



MATCH LINE - SEE SHEET 9

LAST REVISION	DATE PLOTTED => 8/16/2011
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CALIFORNIA
CONSULTANT FUNCTIONAL SUPERVISOR
DESIGNED BY
CHECKED BY
REVISOR
DATE
REVISOR
DATE




DIST	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12,7	Oran	LA	22,73	405,605	8,500,3	80,748,8
REGISTERED CIVIL ENGINEER DATE						
PLANS APPROVAL DATE						
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.						
PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612			ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92663			



ALTERNATIVE ROUTE MAP
(STAGE 4)
SHEET - 9

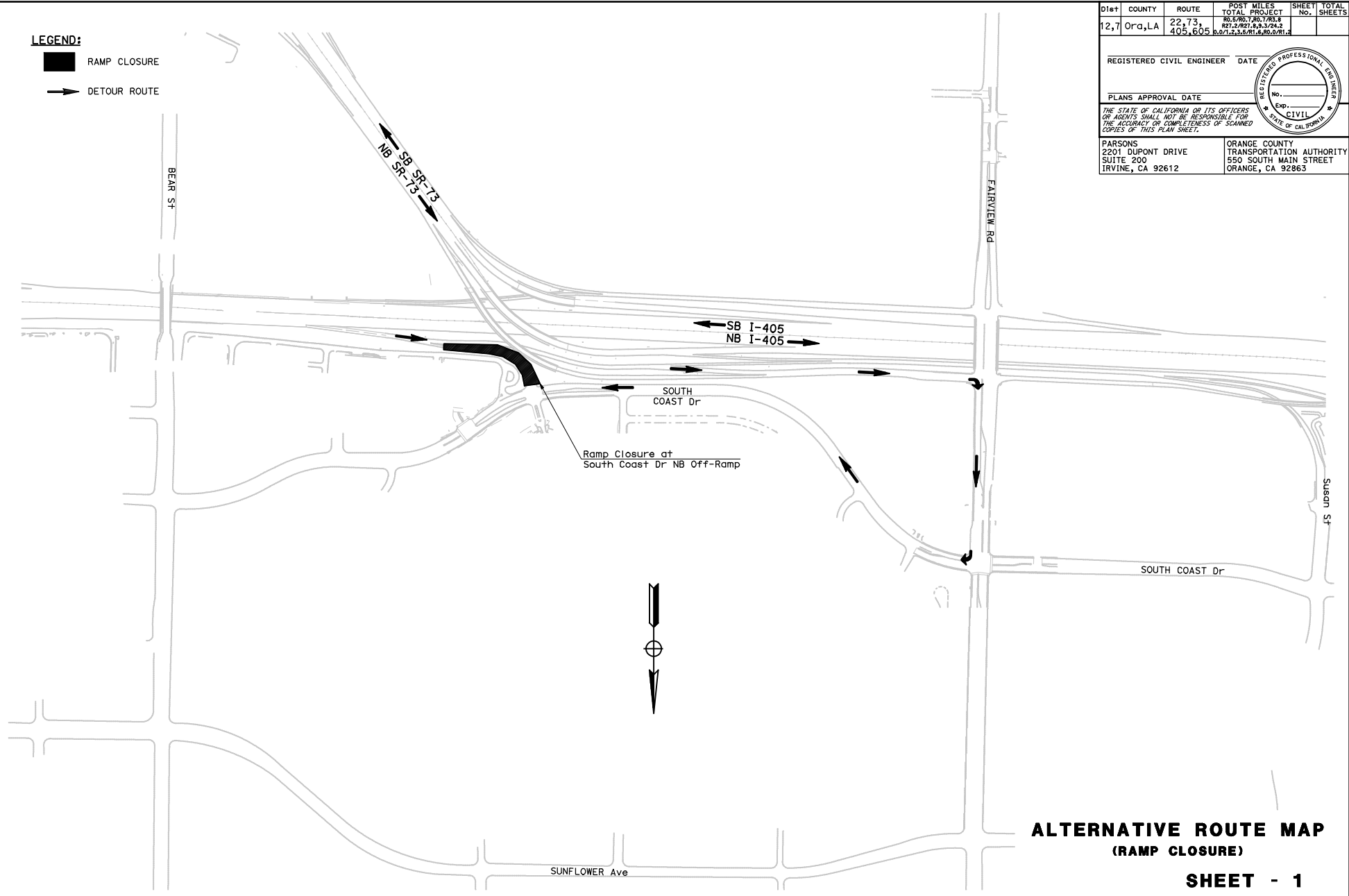
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00-00-00 TIME PLOTTED => 9:38:17 AM

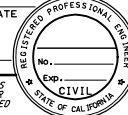
ATTACHMENT F

Alternative Route Map for Ramp Closures

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR	DATE	REVISOR	DATE
		CHECKED BY				


LEGEND:
 RAMP CLOSURE
 DETOUR ROUTE

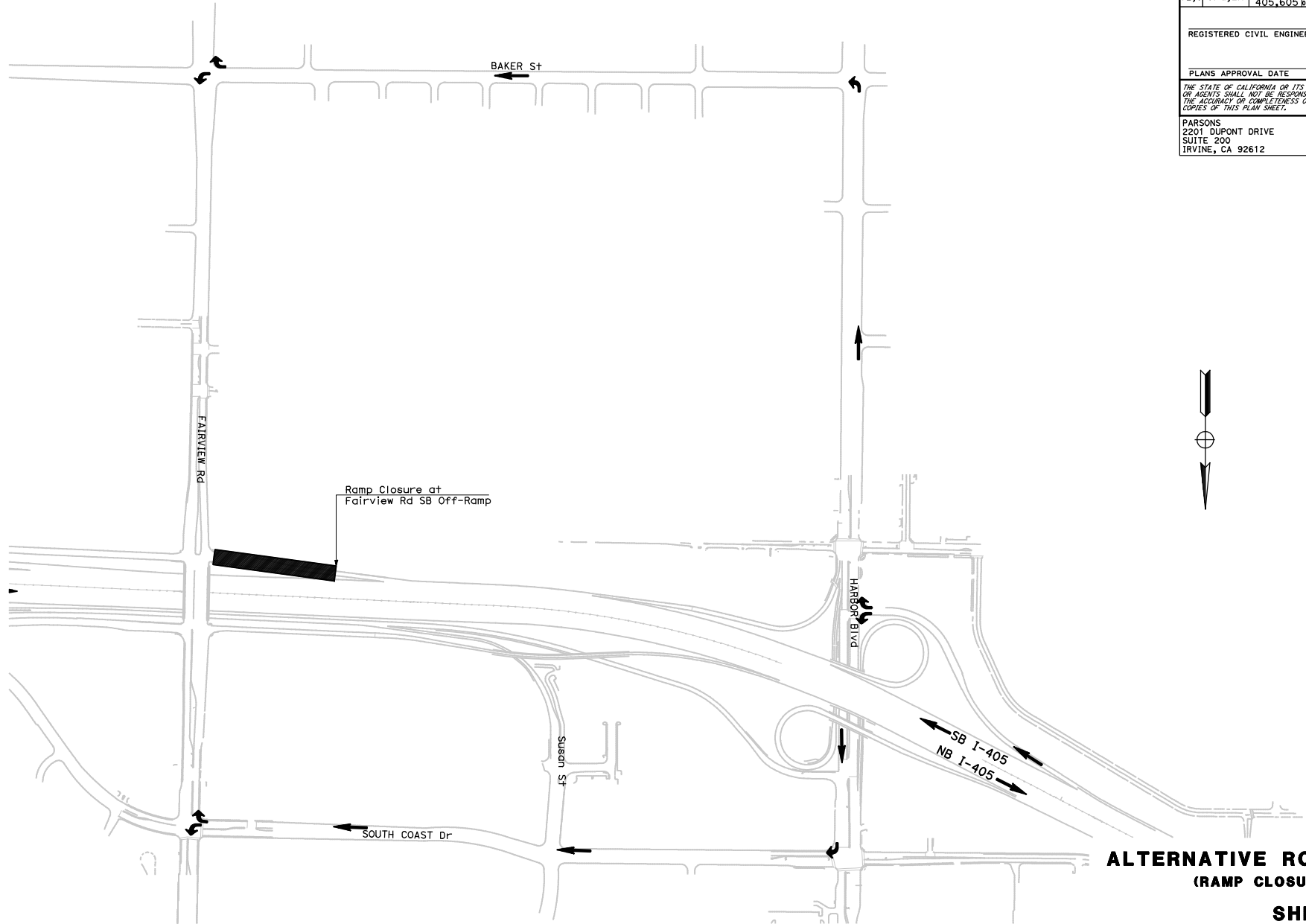


DIST	COUNTY	ROUTE	POST MILES	SHEET	TOTAL
12,7	Oran	LA	22,73	No.	SHEETS
			405,605		
			80,500,7,80,7,80,8		
			827,2/827,8,9,3/84,2		
			8,071,2,2,5/81,6,80,0/81,2		
REGISTERED CIVIL ENGINEER DATE					
PLANS APPROVAL DATE					
					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612			ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863		

**ALTERNATIVE ROUTE MAP
(RAMP CLOSURE)
SHEET - 1**

LAST REVISION DATE PLOTTED => 8/16/2011
00-00-00 TIME PLOTTED => 9:33:47 AM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR	DATE
		CHECKED BY	DATE	



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12,7	Oran	LA	22,73 405,605	81,580,3,80,741,8 827,2/827,8,9,3/84,2 8,071,2,3,5,8/81,6,80,0/81,2	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PARSONS
2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612

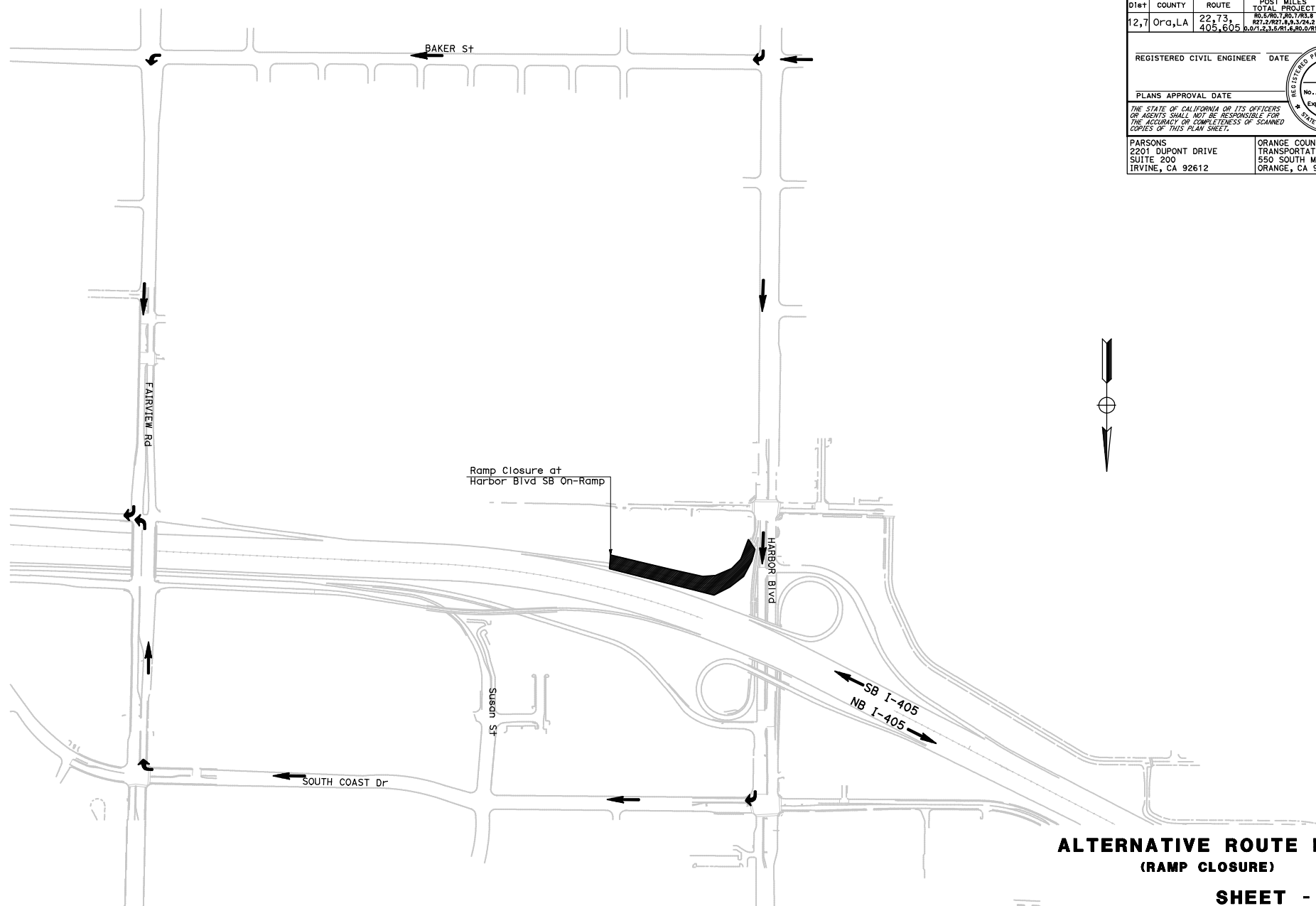
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 SOUTH MAIN STREET
ORANGE, CA 92863

**ALTERNATIVE ROUTE MAP
(RAMP CLOSURE)**

SHEET - 4


LAST REVISION DATE PLOTTED => 8/16/2011
00-00-00 TIME PLOTTED => 9:33:52 AM

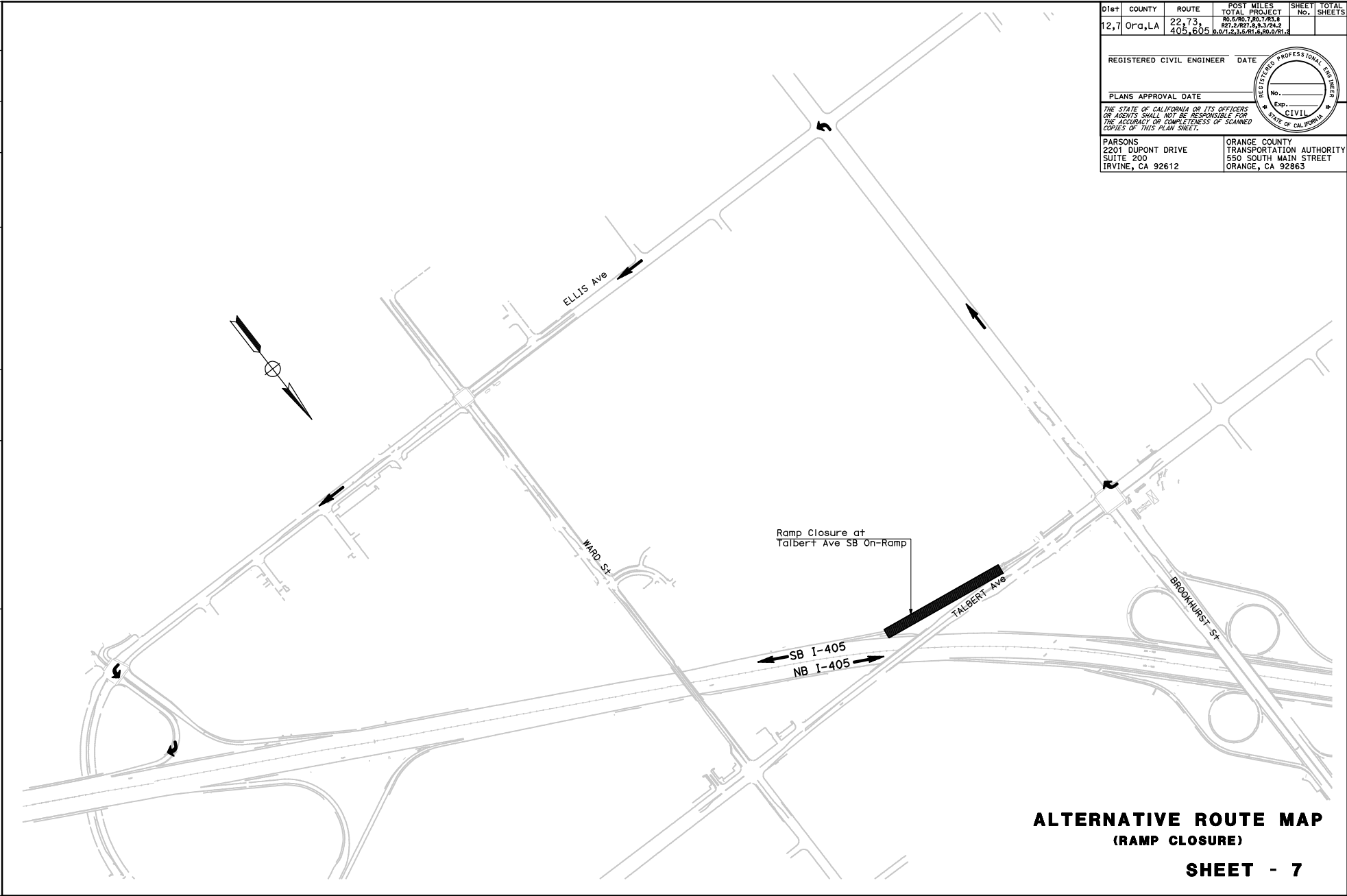
Dist	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET	TOTALS
					No.	SHEETS
12,7	Ora,LA	22,73, 405,605	76,5,6,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136,137,138,139,140,141,142,143,144,145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160,161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,176,177,178,179,180,181,182,183,184,185,186,187,188,189,190,191,192,193,194,195,196,197,198,199,200,201,202,203,204,205,206,207,208,209,210,211,212,213,214,215,216,217,218,219,220,221,222,223,224,225,226,227,228,229,230,231,232,233,234,235,236,237,238,239,240,241,242,243,244,245,246,247,248,249,250,251,252,253,254,255,256,257,258,259,260,261,262,263,264,265,266,267,268,269,270,271,272,273,274,275,276,277,278,279,280,281,282,283,284,285,286,287,288,289,290,291,292,293,294,295,296,297,298,299,300,301,302,303,304,305,306,307,308,309,310,311,312,313,314,315,316,317,318,319,320,321,322,323,324,325,326,327,328,329,330,331,332,333,334,335,336,337,338,339,340,341,342,343,344,345,346,347,348,349,350,351,352,353,354,355,356,357,358,359,360,361,362,363,364,365,366,367,368,369,370,371,372,373,374,375,376,377,378,379,380,381,382,383,384,385,386,387,388,389,390,391,392,393,394,395,396,397,398,399,400,401,402,403,404,405,406,407,408,409,410,411,412,413,414,415,416,417,418,419,420,421,422,423,424,425,426,427,428,429,430,431,432,433,434,435,436,437,438,439,440,441,442,443,444,445,446,447,448,449,450,451,452,453,454,455,456,457,458,459,460,461,462,463,464,465,466,467,468,469,470,471,472,473,474,475,476,477,478,479,480,481,482,483,484,485,486,487,488,489,490,491,492,493,494,495,496,497,498,499,500,501,502,503,504,505,506,507,508,509,510,511,512,513,514,515,516,517,518,519,520,521,522,523,524,525,526,527,528,529,530,531,532,533,534,535,536,537,538,539,540,541,542,543,544,545,546,547,548,549,550,551,552,553,554,555,556,557,558,559,560,561,562,563,564,565,566,567,568,569,570,571,572,573,574,575,576,577,578,579,580,581,582,583,584,585,586,587,588,589,590,591,592,593,594,595,596,597,598,599,600,601,602,603,604,605,606,607,608,609,610,611,612,613,614,615,616,617,618,619,620,621,622,623,624,625,626,627,628,629,630,631,632,633,634,635,636,637,638,639,640,641,642,643,644,645,646,647,648,649,650,651,652,653,654,655,656,657,658,659,660,661,662,663,664,665,666,667,668,669,670,671,672,673,674,675,676,677,678,679,680,681,682,683,684,685,686,687,688,689,690,691,692,693,694,695,696,697,698,699,700,701,702,703,704,705,706,707,708,709,710,711,712,713,714,715,716,717,718,719,720,721,722,723,724,725,726,727,728,729,730,731,732,733,734,735,736,737,738,739,740,741,742,743,744,745,746,747,748,749,750,751,752,753,754,755,756,757,758,759,760,761,762,763,764,765,766,767,768,769,770,771,772,773,774,775,776,777,778,779,780,781,782,783,784,785,786,787,788,789,790,791,792,793,794,795,796,797,798,799,800,801,802,803,804,805,806,807,808,809,810,811,812,813,814,815,816,817,818,819,820,821,822,823,824,825,826,827,828,829,830,831,832,833,834,835,836,837,838,839,840,841,842,843,844,845,846,847,848,849,850,851,852,853,854,855,856,857,858,859,860,861,862,863,864,865,866,867,868,869,870,871,872,873,874,875,876,877,878,879,880,881,882,883,884,885,886,887,888,889,890,891,892,893,894,895,896,897,898,899,900,901,902,903,904,905,906,907,908,909,910,911,912,913,914,915,916,917,918,919,920,921,922,923,924,925,926,927,928,929,930,931,932,933,934,935,936,937,938,939,940,941,942,943,944,945,946,947,948,949,950,951,952,953,954,955,956,957,958,959,960,961,962,963,964,965,966,967,968,969,970,971,972,973,974,975,976,977,978,979,980,981,982,983,984,985,986,987,988,989,990,991,992,993,994,995,996,997,998,999,1000,1001,1002,1003,1004,1005,1006,1007,1008,1009,1010,1011,1012,1013,1014,1015,1016,1017,1018,1019,1020,1021,1022,1023,1024,1025,1026,1027,1028,1029,1030,1031,1032,1033,1034,1035,1036,1037,1038,1039,1040,1041,1042,1043,1044,1045,1046,1047,1048,1049,1050,1051,1052,1053,1054,1055,1056,1057,1058,1059,1060,1061,1062,1063,1064,1065,1066,1067,1068,1069,1070,1071,1072,1073,1074,1075,1076,1077,1078,1079,1080,1081,1082,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1109,1110,1111,1112,1113,1114,1115,1116,1117,1118,1119,1120,1121,1122,1123,1124,1125,1126,1127,1128,1129,1130,1131,1132,1133,1134,1135,1136,1137,1138,1139,1140,1141,1142,1143,1144,1145,1146,1147,1148,1149,1150,1151,1152,1153,1154,1155,1156,1157,1158,1159,1160,1161,1162,1163,1164,1165,1166,1167,1168,1169,1170,1171,1172,1173,1174,1175,1176,1177,1178,1179,1180,1181,1182,1183,1184,1185,1186,1187,1188,1189,1190,1191,1192,1193,1194,1195,1196,1197,1198,1199,1200,1201,1202,1203,1204,1205,1206,1207,1208,1209,1210,1211,1212,1213,1214,1215,1216,1217,1218,12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ALTERNATIVE ROUTE MAP

(RAMP CLOSURE)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
		CHECKED BY	DATE



DIST	COUNTY	ROUTE	POST MILES	SHEET	TOTAL
12,7	Oran	LA	22,73	405,605	80,500,7,80,7,81,8
			821,2/821,8,9,3/84,2 8,071,2,3,5,8/81,6,80,0/81,4		


REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

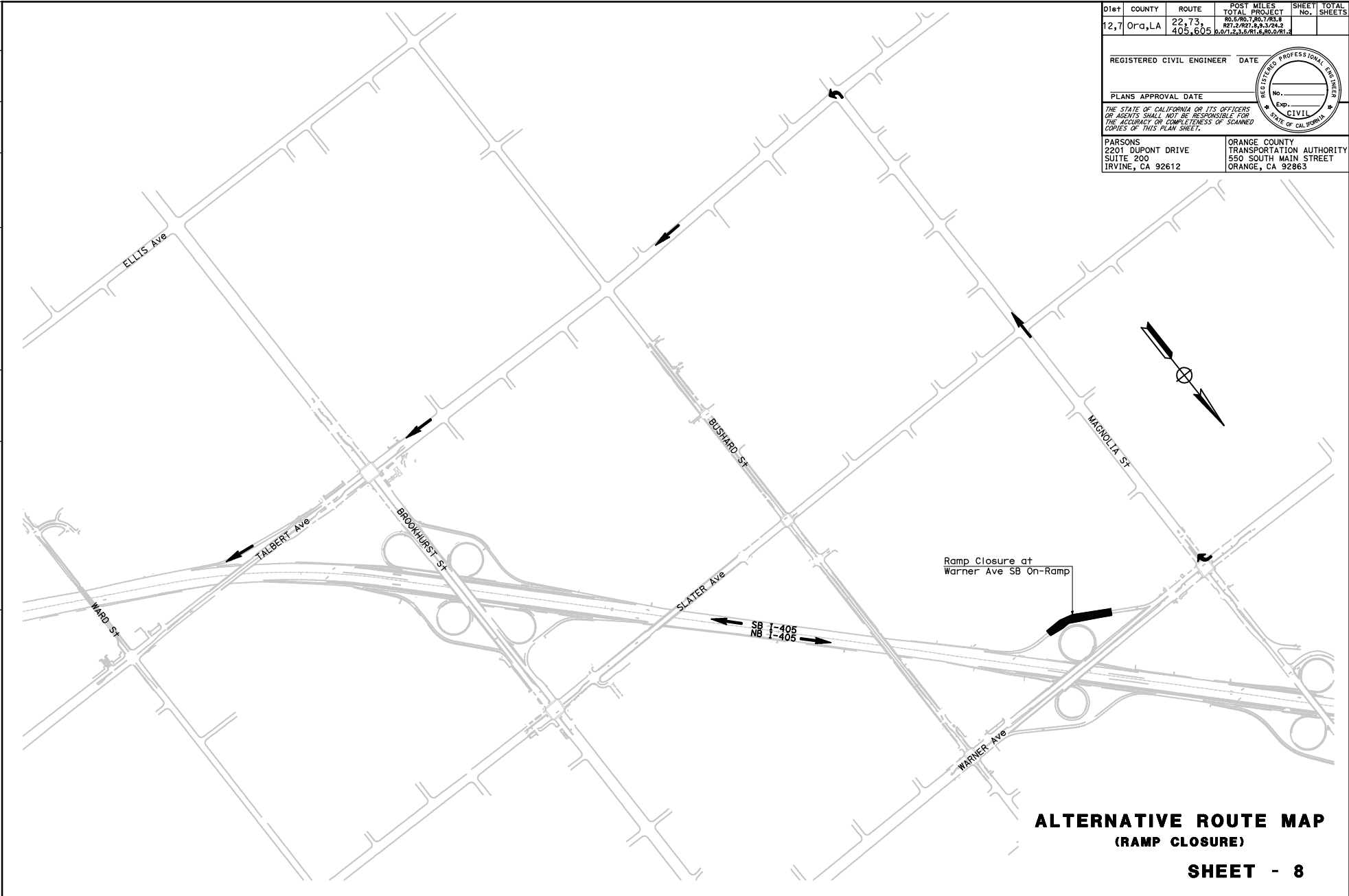
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863
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ALTERNATIVE ROUTE MAP
(RAMP CLOSURE)
SHEET - 7

LAST REVISION DATE PLOTTED => 8/16/2011
 00-00-00 TIME PLOTTED => 9:33:57 AM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
		CHECKED BY	DATE



DIST	COUNTY	ROUTE	POST MILES	SHEET	TOTAL
12,7	Oran	LA	22,73	405,605	80,500,7,80,7,81,8
			TOTAL PROJECT 80,500,7,80,7,81,8 821,2/821,8,9,3/84,2 405,605 8,071,2,2,5,8/81,6,80,0/81,2		

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

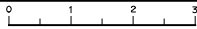
PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863
---	--

ALTERNATIVE ROUTE MAP
(RAMP CLOSURE)
SHEET - 8

BORDER LAST REVISED 7/2/2010

USERNAME => p0027660
 DGN FILE => Exh_Ramp Closure_TMP.dgn

RELATIVE BORDER SCALE
 IS IN INCHES



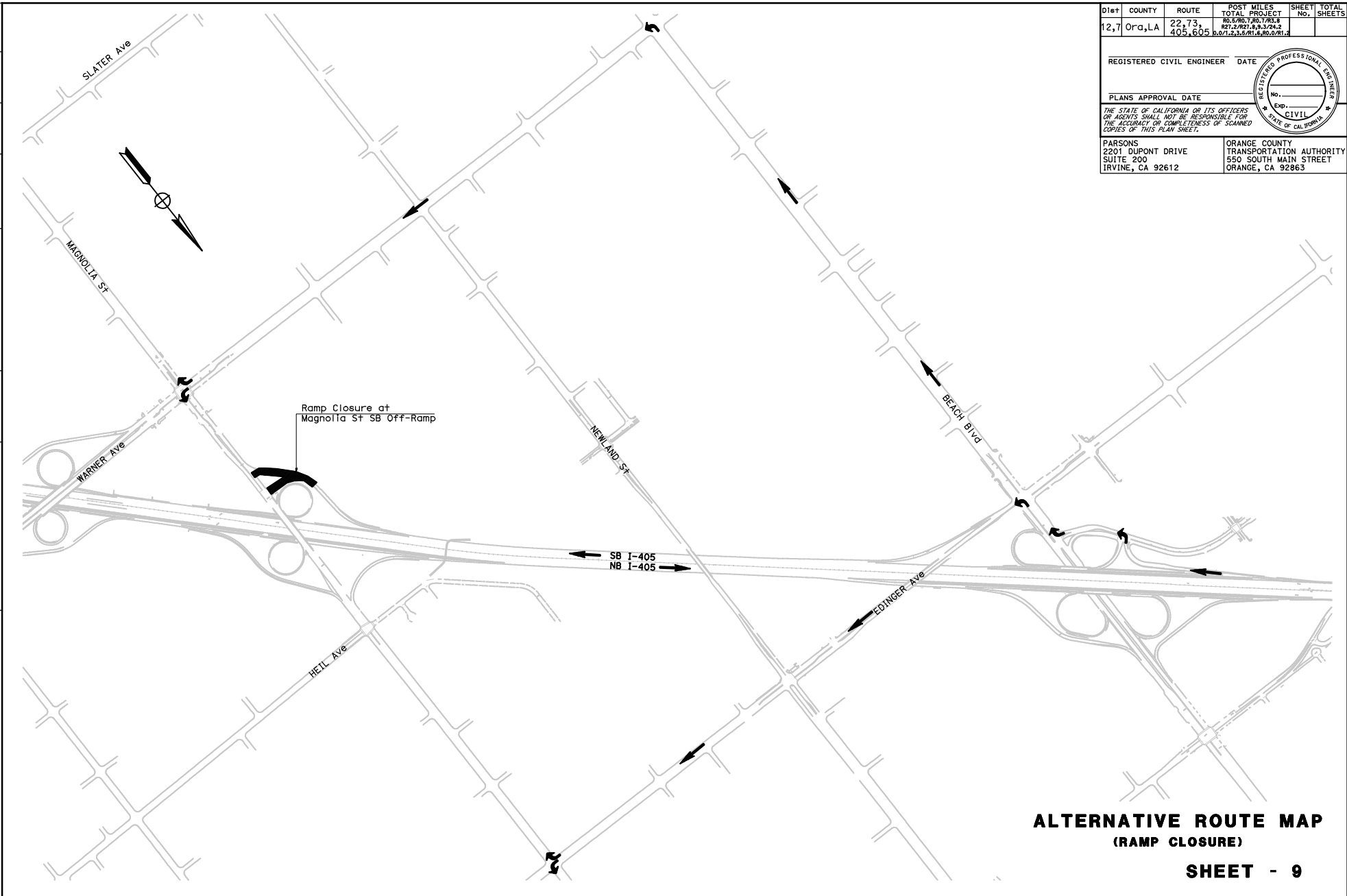
UNIT 2994

PROJECT NUMBER & PHASE

12000001800

LAST REVISION DATE PLOTTED => 8/16/2011
 00-00-00 TIME PLOTTED => 9:33:59 AM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	CHECKED BY	REVISOR	DATE
					



DIST	COUNTY	ROUTE	POST MILES	SHEET	TOTAL
12,7	Oran	LA	22,73	80,500	80,500
			405,605	821,2/821,8	821,2/821,8
				8,071,2	8,071,2

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863
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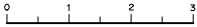
**ALTERNATIVE ROUTE MAP
(RAMP CLOSURE)**

SHEET - 9

BORDER LAST REVISED 7/2/2010

USERNAME => p0027660
DGN FILE => Exh_Ramp Closure_TMP.dgn

RELATIVE BORDER SCALE
IS IN INCHES



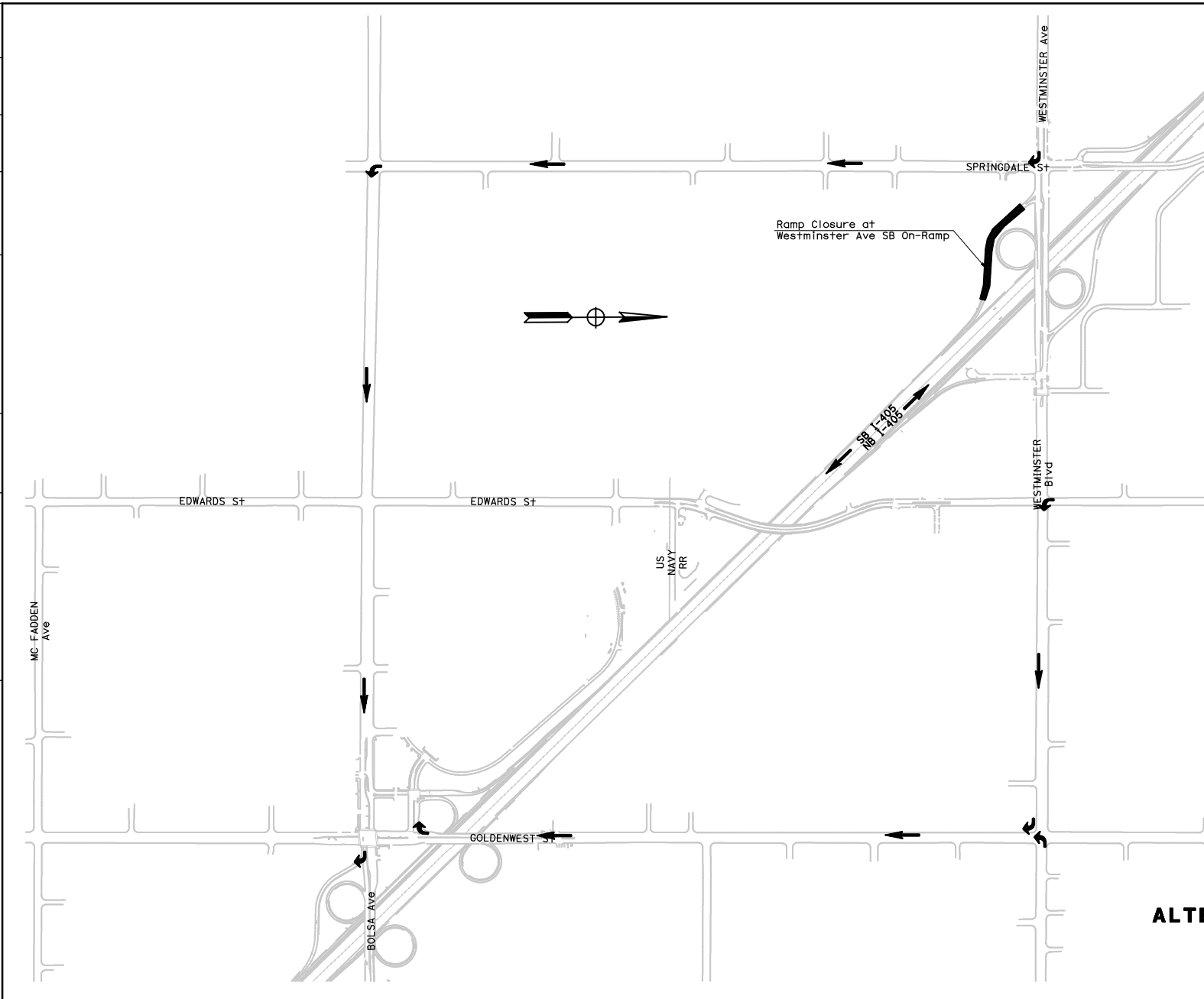
UNIT 2994

PROJECT NUMBER & PHASE

12000001800

LAST REVISION DATE PLOTTED => 8/16/2011
00-00-00 TIME PLOTTED => 9:34:01 AM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED



DIST	COUNTY	ROUTE	POST MILES	SHEET	TOTAL
12,7	Oran	LA	22,73	80,5/80,7/80,9	821,2/823,8/8,3/84,2
			405,605	8,0/1,2,3,5/81,6,80,0/81,7	


REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

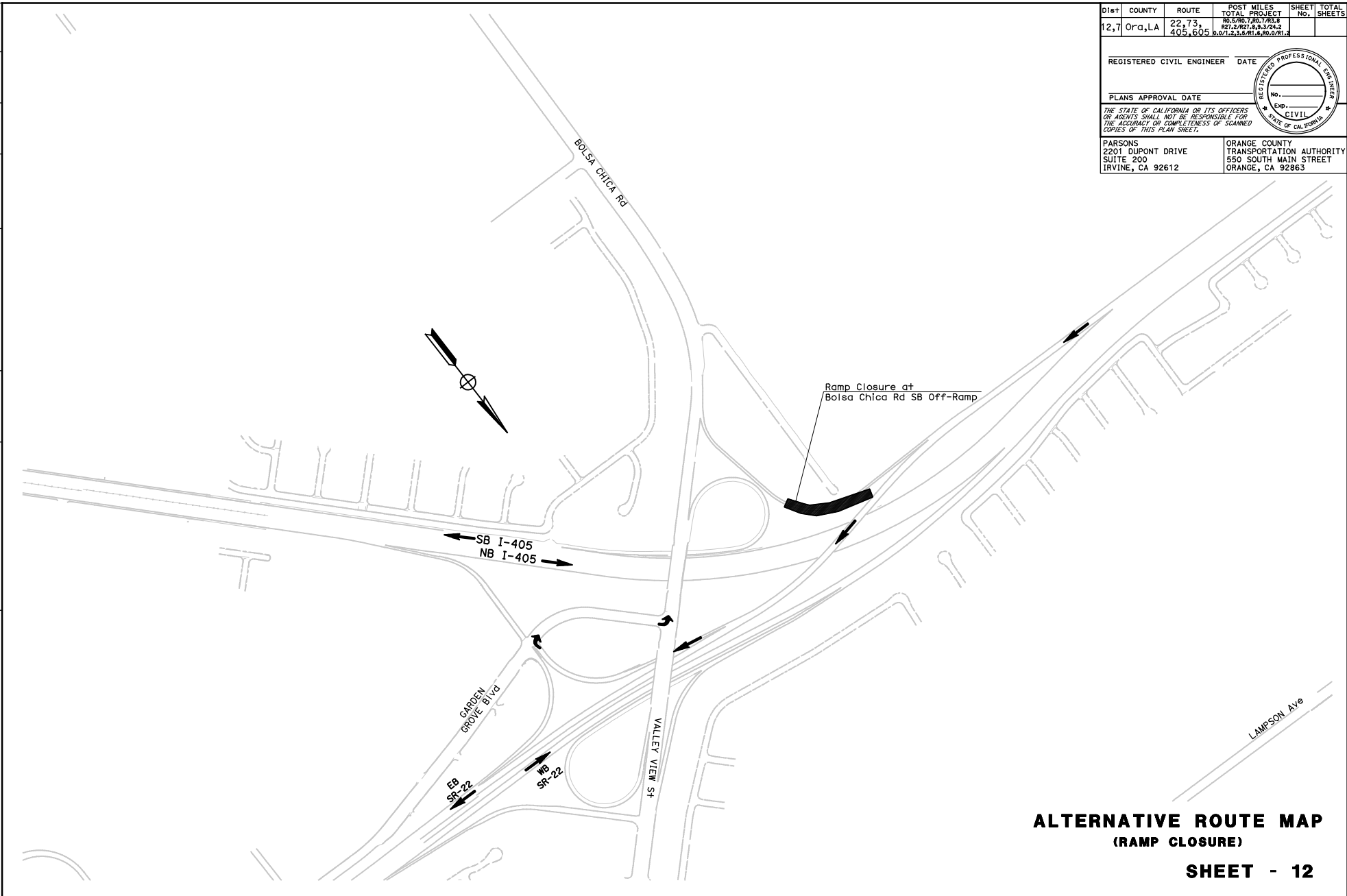
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.	
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PARSONS 2201 DUPONT DRIVE SUITE 200 IRVINE, CA 92612	ORANGE COUNTY TRANSPORTATION AUTHORITY 550 SOUTH MAIN STREET ORANGE, CA 92863
---	--

**ALTERNATIVE ROUTE MAP
(RAMP CLOSURE)**

SHEET - 11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR	DATE
		CHECKED BY	DATE	



DIST	COUNTY	ROUTE	POST MILES	SHEET	TOTAL
12,7	Oran	LA	22,73	80,580	80,745.8
			405,605	821,2/821,8	821,2/821,8

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PARSONS
2201 DUPONT DRIVE
SUITE 200
IRVINE, CA 92612

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 SOUTH MAIN STREET
ORANGE, CA 92863

ALTERNATIVE ROUTE MAP
(RAMP CLOSURE)
SHEET - 12

LAST REVISION DATE PLOTTED => 8/16/2011
00-00-00 TIME PLOTTED => 9:34:07 AM

Appendix E

Socioeconomic Data by Census Tracts

Table 4-1
Study Area Census Tract Population Demographics

Census Tracts	638.05	638.06	639.02	639.03	639.07	639.08	741.06	992.24	992.25	992.29	992.3	992.32	992.33	992.34	992.41	992.42	992.5	992.51	994.1	995.02	995.09	995.1	996.01	996.02
Population 19 or younger	556	882	1,605	1,200	996	1,133	1,673	901	865	1,472	1,161	1,310	925	779	1,099	1,115	659	1,398	1,165	258	5	12	2,442	976
Population 20 to 64	1,442	2,147	4,673	2,459	3,563	4,189	3,461	2,155	2,111	3,622	2,760	3,382	1,969	1,851	2,837	2,344	1,833	3,260	2,730	396	386	567	4,238	2,005
Population 65+	331	627	410	419	509	367	304	358	399	625	483	750	453	404	342	298	458	529	339	2	3,298	3,638	656	230

Census Tracts	996.03	996.05	997.01	997.02	997.03	999.02	999.03	999.05	999.06	1100.04	1100.05	1100.07	1100.08	1100.12
Population 19 or younger	1,569	977	1,703	2,299	1,079	1,523	1,923	858	1,221	1,222	766	1,355	1,155	1,254
Population 20 to 64	3,934	2,251	3,545	5,081	2,865	2,780	3,269	2,061	2,844	2,735	1,848	2,524	2,329	2,860
Population 65+	750	495	588	826	670	335	416	353	723	704	545	848	820	762

Table 4-2
Racial Composition of Population in the Study Area Census Tracts

Census Tracts	638.05	638.06	639.02	639.03	639.07	639.08	741.06	992.24	992.25	992.29	992.3	992.32	992.33	992.34	992.41	992.42	992.5	992.51	994.1	995.02	995.09	995.1	996.01	996.02
Total Population	2,329	3,656	6,688	4,078	5,068	5,689	5,438	3,414	3,375	5,719	4,404	5,442	3,347	3,034	4,278	3,757	2,950	5,187	4,234	656	3,689	4,217	7,336	3,211
White	1,896	2,889	3,776	2,072	3,352	3,156	2,088	1,965	1,973	3,396	3,246	3,888	2,131	1,962	2,455	1,984	1,821	2,496	2,438	248	3,450	3,874	1,955	2,140
Black or African American	27	26	116	45	96	158	156	27	27	76	34	26	7	21	55	35	49	105	80	165	17	16	55	35
American Indian and Alaska Native	8	17	9	7	2	24	11	11	4	24	27	11	8	11	17	18	19	24	28	6	5	9	9	13
Asian	121	185	892	678	779	1,035	672	1,006	1,005	1,260	569	915	794	657	976	628	619	1,357	646	69	86	111	2,415	394
Native Hawaiian and Other Pacific Islander	9	18	44	30	26	16	32	29	14	15	16	17	9	2	3	6	4	23	32	9	2	0	37	11
Some other race	4	12	19	7	13	12	6	2	5	9	18	14	6	8	11	1	11	17	7	2	0	0	4	13
Two or more races	52	98	166	116	229	235	132	83	107	218	139	181	133	104	120	106	115	184	174	18	17	47	137	110
Hispanic or Latino	212	411	1,666	1,123	571	1,053	2,341	291	240	721	355	390	259	269	641	979	312	981	829	139	112	160	2,724	495

Census Tracts	996.03	996.05	997.01	997.02	997.03	999.02	999.03	999.05	999.06	1100.04	1100.05	1100.07	1100.08	1100.12
Total Population	6,253	3,723	5,836	8,206	4,614	4,638	5,608	3,272	4,788	4,661	3,159	4,727	4,304	4,876
White	4,362	2,590	1,622	2,922	2,421	2,077	1,659	2,208	3,338	3,611	2,443	4,031	3,564	3,726
Black or African American	55	30	39	82	54	52	32	40	41	30	26	18	57	65
American Indian and Alaska Native	28	3	20	16	15	19	24	19	26	23	10	11	8	5
Asian	895	582	2,840	3,074	1,419	987	1,701	344	640	424	257	256	237	648
Native Hawaiian and Other Pacific Islander	15	8	19	12	9	23	52	9	12	7	5	3	6	11
Some other race	7	1	3	5	2	8	12	2	9	21	5	3	11	9
Two or more races	147	113	144	191	133	143	92	91	198	95	100	91	111	96
Hispanic or Latino	744	396	1,149	1,904	561	1,329	2,036	559	524	450	313	314	310	316

Table 4-3
Study Area Socioeconomic Characteristics

Census Tracts	638.05	638.06	639.02	639.03	639.07	639.08	741.06	992.24	992.25	992.29	992.3	992.32	992.33	992.34	992.41	992.42	992.5	992.51	994.1	995.02	995.09	995.1
Total Population	2,397	3,553	6,611	4,027	5,068	5,672	5,430	3,414	3,352	5,539	4,388	5,440	3,347	2,998	4,278	3,708	2,863	5,267	4,195	673	3,489	4,012
Per Capita Income	\$29,630	\$34,390	\$21,970	\$21,774	\$33,216	\$27,615	\$18,835	\$25,124	\$27,979	\$26,247	\$28,352	\$29,809	\$23,002	\$25,446	\$23,486	\$21,683	\$27,490	\$23,811	\$22,145	\$12,171	\$24,532	\$24,335
Individual Earnings below Poverty Level	137	247	885	318	254	535	555	237	71	315	80	213	144	72	332	432	87	395	632	0	265	205
% Individual Earnings below Poverty Level	5.7%	7.0%	13.4%	7.9%	5.0%	9.4%	10.2%	6.9%	2.1%	5.7%	1.8%	3.9%	4.3%	2.4%	7.8%	11.7%	3.0%	7.5%	15.1%	0.0%	7.6%	5.1%
Total Families	673	1,079	1,307	895	1,214	1,238	1,224	860	893	1,444	1,186	1,494	825	851	1,036	858	708	1,357	1,025	189	740	709
Average Family Size	3	2.92	3.3	3.72	2.98	3.06	3.54	3.54	3.43	3.3	3.2	3.15	3.59	3.33	3.24	3.61	3.11	3.15	3.24	3.46	2.04	2.07
Median Family Income	\$70,947	\$71,302	\$55,888	\$57,009	\$66,379	\$60,051	\$48,710	\$78,880	\$84,734	\$71,515	\$76,670	\$82,258	\$70,795	\$78,149	\$62,847	\$66,458	\$71,983	\$54,335	\$51,250	\$33,042	\$38,816	\$36,705
Families below Poverty Level	25	41	71	39	36	79	88	60	13	65	6	35	30	5	74	70	5	100	129	0	34	11
% Families below Poverty Level	3.7%	3.8%	5.4%	4.4%	3.0%	6.4%	7.2%	7.0%	1.5%	4.5%	0.5%	2.3%	3.6%	0.6%	7.1%	8.2%	0.7%	7.4%	12.6%	0.0%	4.6%	1.6%
Total Households	889	1,404	2,602	1,143	2,249	2,495	1,807	1,049	1,037	1,886	1,520	1,937	1,011	966	1,630	1,126	1,052	2,047	1,569	182	2,672	3,272
Average Household Size	2.6	2.59	2.55	3.51	2.25	2.26	2.98	3.25	3.24	2.94	2.89	2.79	3.3	3.13	2.62	3.34	2.62	2.53	2.7	3.42	1.31	1.29
Median Household Income	\$66,369	\$67,417	\$49,825	\$61,375	\$59,395	\$53,467	\$47,280	\$74,457	\$87,211	\$70,016	\$73,884	\$72,266	\$66,280	\$73,897	\$53,833	\$63,969	\$64,150	\$48,115	\$48,507	\$32,917	\$23,561	\$25,504

Table 4-3 (cont.)
Study Area Socioeconomic Characteristics

Census Tracts	996.01	996.02	996.03	996.05	997.01	997.02	997.03	999.02	999.03	999.05	999.06	1100.04	1100.05	1100.07	1100.1	1100.12
Total Population	7,258	3,188	6,247	3,693	5,780	8,199	4,600	4,603	5,518	3,267	4,788	4,661	3,156	4,727	4,304	4,869
Per Capita Income	\$14,788	\$24,776	\$28,518	\$31,899	\$15,409	\$18,207	\$27,497	\$17,783	\$13,403	\$20,050	\$31,404	\$27,594	\$28,471	\$36,621	\$36,438	\$38,268
Individual Earnings below Poverty Level	1,586	128	253	175	838	1,316	234	551	952	458	250	123	66	105	114	168
% Individual Earnings below Poverty Level	21.9%	4.0%	4.0%	4.7%	14.5%	16.1%	5.1%	12.0%	17.3%	14.0%	5.2%	2.6%	2.1%	2.2%	2.6%	3.5%
Total Families	1,665	849	1,660	1,016	1,258	1,871	1,116	1,103	1,210	805	1,347	1,326	932	1,424	1,228	1,480
Average Family Size	3.92	3.39	3.12	3.2	3.97	3.75	3.4	3.8	3.98	3.07	3.19	3.14	3.09	3.11	3.02	3.09
Median Family Income	\$40,186	\$68,295	\$71,603	\$81,452	\$51,723	\$56,358	\$74,595	\$52,054	\$42,791	\$49,107	\$78,177	\$77,001	\$80,882	\$95,020	\$80,530	\$105,263
Families below Poverty Level	316	23	59	31	151	232	49	98	142	77	43	17	16	17	29	30
% Families below Poverty Level	19.0%	2.7%	3.6%	3.1%	12.0%	12.4%	4.4%	8.9%	11.7%	9.6%	3.2%	1.3%	1.7%	1.2%	2.4%	2.0%
Total Households	1,980	1,037	2,307	1,321	1,616	2,456	1,612	1,279	1,454	1,325	1,655	1,677	1,138	1,665	1,691	1,724
Average Household Size	3.68	3.04	2.71	2.81	3.58	3.32	2.85	3.63	3.82	2.47	2.89	2.77	2.77	2.83	2.55	2.83
Median Household Income	\$40,708	\$60,724	\$69,888	\$71,429	\$51,808	\$49,063	\$68,445	\$54,451	\$44,397	\$41,250	\$75,906	\$70,096	\$75,319	\$89,651	\$72,059	\$102,061

Table 4-4
Study Area Employment Data, Location of Work, and Means of Transportation to Work

Census Tracts	638.05		638.06		639.02		639.03		639.07		639.08		741.06		992.24		992.25		992.29		992.3		992.32		992.33		
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
Total Population in the Labor Force	1,907	**	2,890	**	5,422	**	3,114	**	4,253	**	4,838	**	4,049	**	2,675	**	2,681	**	4,515	**	3,479	**	4,406	**	2,606	**	
Employed	1194	62.6%	1809	62.6%	3608	66.5%	2030	65.2%	2922	68.7%	3539	73.2%	2747	67.8%	1558	58.2%	1753	65.4%	2905	64.3%	2498	71.8%	2687	61.0%	1589	61.0%	
Unemployed	39	2.0%	73	2.5%	153	2.8%	78	2.5%	84	2.0%	111	2.3%	175	4.3%	73	2.7%	60	2.2%	81	1.8%	66	1.9%	79	1.8%	71	2.7%	
Means of Transportation to Work																											
Car, Truck, or Van	1,085	93.1%	1,589	89.2%	3,276	91.9%	1,689	84.8%	2,600	89.8%	3,248	92.9%	2,413	88.6%	1,473	95.2%	1,651	95.5%	2,583	91.5%	2,250	91.7%	2,440	92.7%	1,423	91.2%	
Public Transportation	0	0.0%	21	1.2%	133	3.7%	102	5.1%	28	1.0%	31	0.9%	124	4.6%	7	0.5%	5	0.3%	52	1.8%	24	1.0%	6	0.2%	9	0.6%	
Walking, Bike, Motorcycle, Other Means	10	0.9%	47	2.6%	67	1.9%	81	4.1%	108	3.7%	122	3.5%	84	3.1%	13	0.8%	0	0.0%	91	3.2%	70	2.9%	58	2.2%	42	2.7%	
Worked at home	70	6.0%	125	7.0%	88	2.5%	119	6.0%	160	5.5%	97	2.8%	101	3.7%	55	3.6%	72	4.2%	98	3.5%	109	4.4%	127	4.8%	87	5.6%	

Census Tracts	992.34		992.41		992.42		992.5		992.51		994.1		995.02		995.09		995.1		996.01		996.02		996.03		996.05	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total Population in the Labor Force	2,427	**	3,394	**	2,809	**	2,335	**	4,084	**	3,262	**	437	**	3,668	**	4,012	**	5,400	**	2,388	**	4,964	**	2,905	**
Employed	1585	65.3%	2350	69.2%	1797	64.0%	1387	59.4%	2679	65.6%	2173	66.6%	98	22.4%	372	10.1%	387	9.6%	2827	52.4%	1634	68.4%	3251	65.5%	1935	66.6%
Unemployed	62	2.6%	100	2.9%	86	3.1%	105	4.5%	146	3.6%	137	4.2%	20	4.6%	9	0.2%	8	0.2%	209	3.9%	109	4.6%	205	4.1%	60	2.1%
Means of Transportation to Work																										
Car, Truck, or Van	1,455	93.6%	2,114	92.5%	1,631	91.6%	1,240	91.2%	2,461	93.8%	1,976	92.3%	262	94.2%	269	78.9%	336	90.6%	2,416	89.2%	1,509	93.3%	3,062	96.5%	1,719	90.4%
Public Transportation	14	0.9%	28	1.2%	56	3.1%	0	0.0%	53	2.0%	20	0.9%	0	0.0%	27	7.9%	0	0.0%	81	3.0%	0	0.0%	11	0.3%	6	0.3%
Walking, Bike, Motorcycle, Other Means	25	1.6%	59	2.6%	61	3.4%	74	5.4%	52	2.0%	68	3.2%	16	5.8%	15	4.4%	15	4.0%	93	3.4%	63	3.9%	57	1.8%	49	2.6%
Worked at home	61	3.9%	84	3.7%	32	1.8%	45	3.3%	58	2.2%	78	3.6%	0	0.0%	30	8.8%	20	5.4%	118	4.4%	46	2.8%	43	1.4%	127	6.7%

Table 4-4 (cont.)
Study Area Employment Data, Location of Work, and Means of Transportation to Work

Census Tracts	997.01		997.02		997.03		999.02		999.03		999.05		999.06		1100.04		1100.05		1100.07		1100.08		1100.12	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total Population in the Labor Force	4,493	**	6,356	**	3,734	**	3,409	**	3,989	**	2,524	**	3,764	**	3,704	**	2,532	**	3,598	**	3,337	**	3,883	**
Employed	2670	59.4%	3764	59.2%	2294	61.4%	1976	58.0%	2209	55.4%	1576	62.4%	2418	64.2%	2338	63.1%	1525	60.2%	2177	60.5%	2045	61.3%	2453	63.2%
Unemployed	127	2.8%	240	3.8%	74	2.0%	99	2.9%	141	3.5%	62	2.5%	71	1.9%	62	1.7%	41	1.6%	38	1.1%	108	3.2%	75	1.9%
Means of Transportation to Work																								
Car, Truck, or Van	2,451	92.6%	3,319	90.5%	2,149	95.9%	1,823	94.8%	1,954	89.8%	1,453	95.5%	2,200	91.9%	2,227	96.9%	1,436	97.0%	1,964	92.1%	1,876	94.7%	2,318	96.0%
Public Transportation	53	2.0%	121	3.3%	19	0.8%	12	0.6%	67	3.1%	0	0.0%	17	0.7%	7	0.3%	5	0.3%	18	0.8%	19	1.0%	21	0.9%
Walking, Bike, Motorcycle, Other Means	87	3.3%	157	4.3%	38	1.7%	63	3.3%	95	4.4%	32	2.1%	46	1.9%	34	1.5%	0	0.0%	27	1.3%	31	1.6%	23	1.0%
Worked at home	57	2.2%	72	2.0%	36	1.6%	24	1.2%	59	2.7%	37	2.4%	132	5.5%	31	1.3%	40	2.7%	124	5.8%	56	2.8%	52	2.2%

Table 4-5
Study Area Tenure

Census Tracts	638.05		638.06		639.02		639.03		639.07		639.08		741.06		992.24		992.25		992.29		992.3		992.32		992.33	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total	889	**	1,404	**	2,602	**	1,143	**	2,249	**	2,495	**	1,807	**	1,049	**	1,037	**	1,886	**	1,520	**	1,937	**	1,011	**
Owner occupied	782	88.0%	954	67.9%	640	24.6%	806	70.5%	1,002	44.6%	862	34.5%	864	47.8%	870	82.9%	955	92.1%	1,291	68.5%	1,273	83.8%	1,767	91.2%	808	79.9%
Renter occupied	107	12.0%	450	32.1%	1,962	75.4%	337	29.5%	1,247	55.4%	1,633	65.5%	943	52.2%	179	17.1%	82	7.9%	595	31.5%	247	16.3%	170	8.8%	203	20.1%

Census Tracts	992.34		992.41		992.42		992.5		992.51		994.1		995.02		995.09		995.1		996.01		996.02		996.03		996.05	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total	966	**	1,630	**	1,126	**	1,052	**	2,047	**	1,569	**	182	**	2,672	**	3,272	**	1,980	**	1,037	**	2,307	**	1,321	**
Owner occupied	878	90.9%	649	39.8%	719	63.9%	592	56.3%	527	25.7%	441	28.1%	2	1.1%	2,594	97.1%	3,174	97.0%	932	47.1%	720	69.4%	1,790	77.6%	1,071	81.1%
Renter occupied	88	9.1%	981	60.2%	407	36.1%	460	43.7%	1,520	74.3%	1,128	71.9%	180	98.9%	78	2.9%	98	3.0%	1,048	52.9%	317	30.6%	517	22.4%	250	18.9%

Census Tracts	997.01		997.02		997.03		999.02		999.03		999.05		999.06		1100.04		1100.05		1100.07		1100.08		1100.12	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total	1,616	**	2,456	**	1,612	**	1,279	**	1,454	**	1,325	**	1,655	**	1,677	**	1,138	**	1,665	**	1,691	**	1,724	**
Owner occupied	852	52.7%	1,544	62.9%	1,166	72.3%	893	69.8%	745	51.2%	555	41.9%	1,483	89.6%	1,511	90.1%	1,024	90.0%	1,578	94.8%	1,421	84.0%	1,618	93.9%
Renter occupied	764	47.3%	912	37.1%	446	27.7%	386	30.2%	709	48.8%	770	58.1%	172	10.4%	166	9.9%	114	10.0%	87	5.2%	270	16.0%	106	6.1%

Appendix F

Summary of Public Involvement Program

Appendix F: Summary of Public Involvement Program

A public involvement program was conducted as part of the environmental review process. This section provides a summary of the on-going public outreach program, public notification, scoping meetings, and comment period during the scoping period. In addition, public hearings on the environmental document will be conducted during the public review period for the environmental document.

Public Outreach Summary

Coordination with affected cities began during the MIS. Cities were represented during the Locally Preferred Strategy Decision Process. The MIS process, as well as the PSR/PDS process, included participation by municipalities along the corridor in the form of attendance at PDT meetings by city/Caltrans/OCTA staff and at Policy Working Group (PWG) meetings by elected city officials. Individual meetings were held with city and Caltrans staff to seek input on potential improvements to interchanges within the proposed project limits that would affect local arterial streets. PWG meetings have been held since then to provide members of the corridor cities and elected officials with a status update of the conceptual engineering effort. Additional meetings with cities have been held throughout the environmental review process to discuss specific elements of design within their jurisdiction.

In late 2008, at the inception of the I-405 Improvement Project environmental review, ascertainment interviews were conducted with select key community leaders to explain the technical studies underway, alternatives under consideration, process for public involvement and ascertain their perception of the project and its history since the MIS phase.

Throughout 2009, joint briefings of City Councils, state legislators and other key stakeholder groups were conducted – with information shared jointly for the I-405 Improvement Project and the West County Connectors project, which was getting ready to begin construction in the same general vicinity. Today, the West County Connectors project is currently in the construction phase and encompasses an extensive outreach effort. More than 30 open houses and a dozen neighborhood meetings have been held. The outreach teams use these opportunities to cross-educate stakeholders about the “future” I-405 Improvement Project.

In mid-2009, a PWG of elected officials and a Stakeholder Working Group (SWG) of key stakeholder groups and employers from the project corridor were convened. PWG and SWG meetings are held at key project milestones to allow these groups to give input on the project and collect information to share with their constituencies.

Federal, state, county and local elected officials for the corridor cities were invited to participate in the PWG. Each corridor city was asked to select a representative from their city council to participate in the PWG. Invite letters were sent to all Congressional Representatives, State Senators, State Assembly members, County Supervisors, Mayors and City Council members representing the corridor cities. Currently, the PWG is comprised of 15 members and chaired by Orange County Supervisor John Moorlach.

The SWG was developed as a vehicle for a cross-section of community stakeholders from throughout the project area to be directly engaged in the environmental process and provide feedback on the various alternatives under consideration. Nearly 170 community and business leaders were invited to participate in the SWG. Currently, the SWG is comprised of 38 leaders including representatives from the residential, educational, business, entertainment, health care and other stakeholder communities.

Public information materials are distributed prior to public comment periods and when there is new information to share, to educate the public about the project and explain the process for public involvement. The ¼-mile radius mailing list encompasses 20,404 addresses and the e-blast list encompasses approximately 2,100 e-mail addresses. Media outreach includes such publications as the Orange County Register, Los Angeles Times, Long Beach Press-Telegram, Westminster Herald, Excelsior (Spanish-language newspaper) and Nguoi-Viet (Vietnamese-language newspaper). The project website, www.octa.net/405improvement contains extensive project information and serves as a repository of all project collateral, board reports, SWG and PWG minutes and materials, and information on the history of the I-405 improvement project from the Major Investment Study to the current environmental studies.

OCTA strives to respond to all stakeholder email and phone queries within 48 hours of contact.

For the duration of the project, OCTA and Caltrans will continue to engage stakeholders and inform people about how to provide input to the project and process. Outreach and public notification measures implemented for the scoping phase will again be used for the upcoming public hearings on the Draft EIS/EIR. Public information materials will be updated and distributed at key project milestones.

Project Notification

Stakeholders in the Orange County area, as well as local, state, and federal agencies, were notified of the proposed project and invited to participate and submit comments in four scoping meetings. The following public notices were prepared to announce the proposed project.

Notice of Preparation

To fulfill CEQA requirements, a Notice of Preparation (NOP) was drafted announcing the commencement of the environmental review process for the project. The NOP was sent to the State Clearinghouse and Planning Unit of the Governor's Office of Planning and Research, distributed to agencies with potential interest in the Project, sent for posting to local libraries in surrounding cities, and posted online on both OCTA's and Caltrans' websites. Pursuant to Public Resources Codes 21092.3 and 21152, the notice was officially submitted to the Orange County Clerk-Recorder, Tom Daly, to be posted for 30 days for public review. Additionally, the NOP was formally submitted to the California Transportation Commission (CTC), along with a memorandum providing project information.

Notice of Intent

To fulfill NEPA requirements, a Notice of Intent (NOI) was drafted and submitted by FHWA to the Office of the Federal Register for publishing in the Federal Register. The NOI was also posted on both OCTA's and Caltrans' websites.

Public Notice Advertisement

A public notice advertisement was distributed containing information on the project and the scoping period, including the dates and locations of the four public scoping meetings, as well as contact information for submitting comments. The advertisement was translated into Spanish and Vietnamese. On September 4, the beginning of the public scoping period, the advertisement ran as a one quarter page spread in English in the Orange County Register and Long Beach Press-Telegram, in Vietnamese in Nguoi-Viet, and in Spanish in the Excelsior.

Public Notice Direct Mail Distribution

A mailer including all of the relevant information as published in the NOP and NOI was distributed to all occupants within one quarter mile around I-405 from SR-73 to I-605. Approximately 23,000 residents and businesses received the mailer announcing the project, inviting them to the public scoping meetings, and providing them with the necessary information to file their official comments.

Website

Web pages were developed by OCTA detailing the I-405 Project, featuring an image gallery, project overview, and a chart of environmental phase milestones. The site also included downloadable fact sheets on the project, as well as maps, conceptual drawings, and copies of all public notices and presentations given. Contact information for official comments was also provided.

The NOP and NOI were both available for review on OCTA's and Caltrans' websites at the following addresses:

- www.octa.net/405improvement
- www.dot.ca.gov/dist12/405/index.htm

Agency Notification

A list of agencies with relevant jurisdiction was compiled and used to create a distribution list for mailing letters inviting agencies to participate. While some agencies accepted participating agency status, some declined or did not respond; however, all agencies included on this list received a NOI/NOP at their address. All those agencies with participating agency status received a NOI/NOP along with a Coordination Plan, in compliance with the SAFETEA-LU Section 6002.

SAFETEA-LU, authorizing U.S. highway and transit programs, was signed into law on August 10, 2005. Numerous provisions of the law are aimed at improving the environmental review process for transportation projects. One of the key requirements of SAFETEA-LU related to public involvement is that the lead agency must provide the "opportunity for involvement" to participating agencies and the public in developing a purpose and need and the range of alternatives to be considered for a proposed project.

Public involvement, agency coordination, and Native American tribal coordination were carried out during the development process of the proposed project by means of formal scoping meetings, participating agency coordination meetings, community meetings, potentially affected property owner meetings, political representative meetings, notification letters, and the creation and maintenance of a project website.

Ongoing coordination meetings with affected business owners and groups, government agencies, railroads, and utility companies are being conducted to update interested parties on the status of the proposed project, obtain public and agency input, and resolve issues. Letters describing the proposed project and inviting comment were sent to Native American groups and other individuals known to have an interest in the proposed project.

Scoping Activities

The scoping activities were arranged by the OCTA in coordination with Caltrans. The scoping period ran for 30 days from September 4, 2009 to October 8, 2009. It was officially initiated by circulation of a notice mailer, as well as the formal NOI and NOP announcing the undertaking of

a joint Environmental Impact Report (EIR)/Environmental Impact Statement (EIS). Four Public Scoping Meetings were held as follows:

- Tuesday, September 22, 2009 6:00 PM-8:00 PM. Fountain Valley Senior and Community Center, 17967 Bushard Street, Fountain Valley.
- Wednesday, September 23, 2009 6:00 PM-8:00 PM. Huntington Beach Library, 7111 Talbert Avenue, Huntington Beach.
- Wednesday, September 30, 2009 6:00 PM-8:00 PM. Westminster Community Center - A/B Room, 8200 Westminster Avenue, Westminster.
- Thursday, October 01, 2009 6:00 PM-8:00 PM. Rush Park Auditorium, 3021 Blume Drive, Rossmore.

The scoping meetings were designed to explain the proposed project and the environmental process to residents, business operators, commuters, elected officials, and other stakeholders. All four meetings provided visitors with the opportunity to hear a detailed presentation on the Project; speak with staff from OCTA, Caltrans and the consultant team; view boards depicting the EIR/EIS process; and visualize the considered alternatives as they have been designed thus far. All attendees were provided with a project newsletter and a frequently asked questions handout.

Attendees were encouraged to document their comments both with the court reporter and with a submission of a comment card. The meetings had strong attendance, including visits from local government officials.

Public Comment Summary

Several written comments and emails were received during the public scoping period. Most of the comments came from concerned businesses and home owners. Letters from agencies mostly provide specific guidance on the environmental process. Issues of concern expressed by residents thus far are summarized below:

- Concern over how many homes, if any, would be acquired
- Opposition to the idea of being tolled to use the freeway
- Questions about noise impacts and sound walls
- How the proposed Project would affect property values
- Inquiries into the environmental study process, including which studies would be undertaken, with emphasis on noise and air quality

- Suggestions about mass transit options
- Questions about funding the proposed Project
- Suggestions about alternatives and possible design modifications